☞Read Advertisements in the Journal Advertiser.

VOL. XXXIV. March, 1878. NUMBER 3.

THE

SAINT LOUIS Medical and Surgical JOURNAL.

THOS. F. RUMBOLD, M. D.,
EDITOR AND PROPRIETOR.

HIRAM CHRISTOPHER, M. D.,
ASSOCIATE EDITOR.

MAR 1 1934

ESTABLISHED 1843.

SAINT LOUIS:
GEO. O. RUMBOLD & CO., PUBLISHERS,
No. 1225 WASHINGTON AVENUE.

Published Monthly. Terms, Three Dollars per annum, IN ADVANCE. Single Copies, Thirty Cents.

Subscriptions and all Communications should be sent to THE EDITOR, 1225, Washington Ave., St. Louis.

See Index to Advertisements Page xviii.

PHYSICIANS' SUPPLY

DEPOT.

RABOTEAU & COMP'Y.,

WHOLESALE AND RETAIL

DRUGGISTS AND PHARMACEUTISTS,

714 North Fifth St.,

ST. LOUIS, MISSOURI.

—DEPOT OF—

Hance Bros. & White's

Solid and Fluid Extracts, and Sugar Coated Pills.

Powers & Weightman's Chemicals.

We make it a specialty supplying Physicians with the latest Chemical and Pharmaceutical Preparations, American and Foreign, also a full line of Tinctures and Syrups of the United States Pharmacopœia, and King's American Dispensatory.

☞ Particular and Confidential attention paid to the Compounding of Private Formulas.

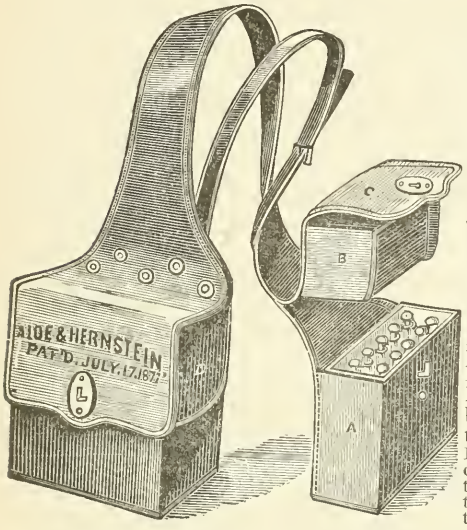
RABOTEAU & CO.

☞ Price Lists Furnished on Application. ☜

ALOE & HERNSTEIN'S

IMPROVED

PHYSICIANS' SADDLE BAG



This Bag is the most complete and durable Bag in the Market, and will give the best satisfaction to the Profession of any Bag ever offered. The Bag is entirely riveted with copper rivets, thereby doing away with the old style of sewing, which has been the great objection heretofore. The boxes containing the bottles are made of the best Tin Metal. A is the metal box containing the bottles; B is the box used to carry instruments, powders, etc.; C is the flap, which holds the upper and lower boxes, A and B, firmly together, being fastened by a turn lock, which holds the contents in their place; D represents the Bag when closed. It is the only Bag made that has a complete water shed to prevent the contents from getting wet.

PRICES:

For Bags containing 20 Ground Stoppered Vials.....$12 00
" " 24 " " " 13 00
Made of the best Black Bridle Leather.
For Bags containing 20 Ground Stoppered Bottles.....$13 00
" " 24 " " " 14 00
Made of the best Russet Leather.

MANUFACTURED BY

ALOE & HERNSTEIN,

MANUFACTURERS AND IMPORTERS OF

Surgical Instruments and Physicians' Supplies.

300 North Fourth Street, St. Louis.

Trusses, Supporters, Shoulder Braces, Dissecting Cases, Crutches, Saddle Bags, Ear Trumpets, Atomizers, Pessaries, Elastic Stockings, Thermometers, Etc., Etc.

Agent for Geo. Tiemann & Co.'s Celebrated Surgical Instruments, Galvano-Faradic Company's Electric Magnetic Machines, A. Graille's French Pocket Electro Medical Apparatus.

☞**SEND FOR ILLUSTRATED CATALOGUE.**☜

☞In Corresponding with Advestisers please mention **The Medical Journal.**

DEFRESNE'S

Pancreatic Emulsion of

COD LIVER OIL.

Represents Cod Liver Oil in a state of perfect emulsion, and hence readily borne by the most delicate patient.

DEFRESNE'S PANCREATINE, the active principle of the pancreatic juice, is a most important remedy for [illegible] Indigestion, Atony of the digestive organs, and various forms of Dyspepsia, when Pepsine and other remedies have failed.

As a Help for the Digestion of Fats, physicians will find Pancreatine invaluable to patients who are unable to support Cod Liver Oil, or fatty substances.

The dose of Pancreatine is 5 to 15 grains, according to the nature of the case, taken before or during meals. *Bread* [illegible] *teaspoonful Half or One ounce.*

The following **Preparations of Pancreatine** are offered:

PANCREATINE PILLS, containing [illegible] each.

PANCREATINE WINE and **ELIXIR**, given in doses of one or two tablespoonfuls.

PANCREATIC EMULSION OF SOLID FAT, fresh and sweet, representing fat perfectly emulsified and ready for immediate absorption.

Mr. Defresne having made Pancreatic preparations a subject of special study for several years, has succeeded in obtaining them in great perfection, and hence they are recommended as superior to similar preparations heretofore offered.

Ferro-Manganic Preparations
Of BURIN Du BUISSON.

The superiority of *combinations of the Salts of Iron and Manganese* over those of *Iron* have been fully established by the experiments of Dr. Petrequin. The following *Ferromanganic preparations*, approved by the Imperial Academy of Medecine of Paris, have been originated by Mr. Burin Du Buisson in accordance with these experiments, and are confidently recommended to the medical profession as replacing advantageously all medecines having iron as their base, especially in *chloroanæmia, chlorosis, and all affections caused by the poverty of the blood*:

Ferromanganic Powder, for effervescing water.
Carbonate of Iron and Manganese Pills.
Syrup of the Lactate of Iron and Manganese.
Dragees of the Lactate of Iron and Manganese.
Syrup of the Proto-Iodide of Iron and Manganese.
Pills and Dragees of the Proto-iodide of Iron and Manganese.
Maganesic Iron reduced by Hydrogen.

Grimault's Indian Cigarettes,
Prepared from the Resin of Cannabis Indica.

Asthma, Bronchitis, Loss of Voice, and other affections of the respiratory organs, are promptly cured or relieved by the use of these cigarettes.

E. FOUGERA & CO., New York, Agents.

DOCTOR RABUTEAU'S
DRAGEES, ELIXIR & SYRUP

Of Proto-Chloride of Iron.

"The experiments made in the hospitals of Paris have demonstrated that *Dr. Rabuteau's Dragees, Elixir and Syrup* regenerate the red globules of the blood with a rapidity never observed with the use of the other ferruginous preparations. These results have been proved by the various *Compt-Globules*.

"The ferruginous preparations of *Dr. Rabuteau* do not cause any constipation, and are perfectly tolerated by the weakest persons."—*Gazette des Hopitaux*.

Dr. Rabuteau's Elixir is prescribed when some difficulty is experienced in swallowing the Dragees; it is especially adapted to weak persons, whose digestive functions need strengthening or stimulating.

Dr. Rabuteau's Syrup is especially prepared for children, who take it readily because of its agreeable taste.

DOCTOR CLIN'S
Capsules and Dragees

Of Bromide of Camphor.

"These remedies are prescribed when it is necessary to produce an energetic sedation on the circulatory system, and particularly on the nervous cerebro-spinal system.

"They constitute one of the most energetic *anti-spasmodic* and *hypnotic* medicines."—*Gazette des Hopitaux*.

"*Dr. Clin's Capsules and Dragees of Bromide of Camphor* are those employed in all the experiments made in the Hospitals of Paris."—*Union Medicale*.

Dr. Clin's Capsules contain 4 grains, and the Dragees 2 grains, of genuine Bromide of Camphor.

N. B.—*Dr. Clin's Gluten Capsules* are very rapidly dissolved in the stomach, and should be preferably employed for a long treatment, and when the administering of Bromide of Camphor at a great dose would be considered as beneficial.

Prepared by CLIN & CO., Pharmacists, Paris.

DUCRO'S
ALIMENTARY ELIXIR,

A COMBINATION UNITING THE PROPERTIES OF

Alcoholic Stimulants and Raw Meat.

This preparation, which has been used with great success in the hospitals of **Paris**, since 1868, is adapted to the treatment of all diseases requiring the administration, in a small volume, of a tonic able to stimulate and support the vital forces, as *Pulmonary Phthisis, Depression* and *Nervous Debility, Adynamia, Malarious Cachexia*, etc.

Prepared by DUCRO & CIE, Paris.

E. FOUGERA & CO., Agents, New York.

THE SAINT LOUIS BOOK and NEWS COMPANY'S

REDUCED PRICE LIST

—OF—

MEDICAL PUBLICATIONS.

	Pub at	Off at
Audral, Medical Clinics	$6 00	$3 00
Allen, Aural Catarrh	2 00	1 00
Brinton, on the Stomach	3 25	1 65
Beard, Eating and Drinking	50	25
Bennett, Practice of Medicine	6 00	4 00
Bell, Operations in Surgery	2 00	1 00
Bull, Maternal Management of Children	1 25	65
Borchardat, Abstract year 1867	1 75	90
Bigelow, Nature in Disease	1 25	65
Basham, Diagnosis, Aids to	2 00	1 00
Billings, First Principles of Medicine	6 00	3 00
Ballard & Garrod's Materia Med	3 00	1 50
Blakiston, on the Chest	1 25	65
Buck, Lithotomy and Lithotrity	1 00	50
Biddle, Materia Medica, 7th ed	4 00	2 00
Craigie, Anatomy	3 00	1 50
Churchill, Puerperal Fever	2 50	1 25
Copland, Med Dict 3 vols leather	21 00	10 50
Christison & Griffith, Dispensatory	4 00	2 00
Chew, Medical Education	1 00	65
Dickinson, Pathology and Treatment of Albuminuria	6 00	3 00
Dublin Dissector	2 00	1 00
Druitt, Surgeons' Vade Mecum	5 00	2 50
Dickson, Pathology and Therapeutics	1 50	75
Duncan, Mortality of Childhood and Maternity Hospitals	2 50	1 25
Dumas, Man-Woman	1 00	50
Drake, Principal Diseases of the Interior Valley of North-America—Fevers	5 00	3 00
Erichsen's Surgery, 2 vols—cloth 1873	9 00	6 00
Echeveria, Epilepsy	5 00	2 50
Flint, Effects of Severe Muscular Exercise	2 00	1 00
Flagg, Handbook of Sulphur Cure	50	25
Fowler, Physiological Science	2 00	1 25
Gerhard, on Chest	4 00	2 00
Garrod, Materia Medica	4 00	2 00
Goadby, Vegetable and Animal Physiology	3 50	1 75
Greenlow, Chronic Bronchitis	2 75	1 40
Gunn's Newest Family Physician Last Ed	8 00	6 00
Gibson, Surgery	6 50	3 25
Goddard on Teeth	3 75	1 90
Gluge, Histology	4 00	2 00
Holland, Medical Notes and Reflections	3 00	1 50
Handy, Anatomy	4 00	2 00
Hamilton, Purgative Medicine	1 25	65
Hartshorne, Glycerine	75	40
Hist. Med Dep't University Penn	3 00	1 50
Hinton, Phys'gy for Practical Use	2 25	1 15
Holmes' system of Surgery, vol.	2 9 50	1 75
Heule's General Pathology	2 00	1 00
Harris, Dictionary of Dental Surgery	7 50	3 75
Kirke, Manual of Physiology	$2 75	$1 40
Knapp, Intra-Ocular Tumors	3 75	1 90
Letterman, Recol Army Pol	2 00	1 00
Lyons, Fevers	2 25	1 15
Lee, Prize Essay on Consumpt'n	1 00	50
Murray, Emotional Disorders	1 50	75
Murphy, Parturition	2 25	1 15
Mc Clellan's Surgery	2 00	1 00
Miller, Principles of Surgery	3 75	1 90
Malgaigne, Operative Surgery	3 00	1 50
Morland, Uræmia	75	40
Meigs, Child Bed Fevers	2 00	1 00
Mother's Register—Boys	1 00	50
Marshall, Outlines of Physiology 1868—Leather	7 50	5 00
Murphy, Review of Chemistry for Students	1 25	65
Payne, Institutes of Medicine	5 00	2 50
Prescott, Strong Drink and Tobacco Smoke	3 00	1 75
Phillips' Ophthalmic Surgery	5 50	2 75
Pancoast, Consumption	1 50	75
Physician's Case Book, with Diagrams—office style, hlf mor	5 00	3 50
Reese, Medical Formulary	1 50	75
Reese, Analysis of Physiology	1 50	75
Reynolds, System of Med vol 1.	9 00	4 50
Royle & Headland, Materia Med	7 00	3 50
Self-Cure of Debility	75	40
Sanson, Chloroform	2 25	1 15
Stellwag, Dis. of Eye, 4th ed, 1873	7 00	5 00
Smith, Doctor in Medicine	2 00	1 00
Shew, Domestic Medicine	5 00	2 50
Simpson, Anæsthesia, Hospitalism, etc	3 00	1 50
Syme, Surgery	6 00	3 00
Smith, Consumption	2 25	1 15
Tamplin, Deformities	1 00	50
Thomson, Dict. of Domestic Med	2 50	1 25
Taylor, Family Doctor	1 75	90
Todd & Bowman, Physlog. Anat	5 25	2 65
Trousseau, Clin. Medicine, vol 5	4 00	2 00
Todd, Acute Diseases	2 50	1 25
Tilt, Elements of Health	1 50	75
Thompson, Pulmon'y Consult'n	2 00	1 35
U. S. Dissector	2 00	1 00
Velpeau, Lessons in Surgery	1 00	50
Vogel, Diseases of Children—1871 cloth	4 50	3 00
Vidal, Veneral Diseases—3rd ed 1865—leather	5 00	3 00
Wood, Therapeutics and Pharmacology—3rd ed, 1868, 2 vols—cloth	9 00	6 00
The same, leather	10 00	7 00
Williams, Our Eyes	1 00	50
Wilson & Buchanan, Anatomists Vade Mecum	5 50	2 75
Wilson, Cutaneous Medicine	3 50	1 75
Williams, Recent Advances in Ophthalmic Science	1 50	75
Walton, Operative Ophthalmic Surgery	4 00	2 00

307 North Fourth St., St. Louis.

☞ **All who have paid for their Subscriptions will receive their Receipts in this Number. All who have not will please remit at once.**

CONTENTS.

ORIGINAL CONTRIBUTIONS.

ARTICLE.		PAGE.
XXI.	Genesis.—III. By Hiram Christopher, M. D., of St. Louis	161
XXII.	Alcohol. By Simeon E. Bucknell, M. D , of Shipman, Ill	170
XXIII.	Plaster Jacket in Fractures of the Spine. By Prof. J. T. Hodgen, M. D., of St. Louis	182
XXIV.	Two Cases of Ovariotomy.—Recovery. By A. V. Banes, M. D., of St. Joseph, Mo	183
XXV.	Review on the Treatment of Fracture of the Femur. By Edw. Borck, M. D., of St. Louis	187
XXVI.	Catarrhal Pneumonia. By J. Hilgard Tyndale, M. D., of New York	196
XXVII.	Address before the St. Louis Obstetrical and Gynæcological Society. By the President, S. Gratz Moses, M. D., of St. Louis	203
XXVIII.	Medical Experts as Witnesses in Courts of Justice.—III. By F. T. Ledergerber, Esq., of St. Louis	207

PROCEEDINGS OF MEDICAL SOCIETIES.

St. Louis Medical Society 211

CLINICAL REPORTS FROM PRIVATE PRACTICE.

A Case of Perityphlitic Abscess. By E. M. Bartlett, M. D., and C. Pearson, M. D., of Louisiana, Mo 219

Double Peri-Nephritic Abscess. By J. A. Stucky, M. D., of Lexington, Ky 222

CORRESPONDENCE 224

EXCERTS 235

EDITORIAL.

Preparation of Papers 227

Illustrated Doctors 228

Calisthenics 228

MEDICAL NEWS ITEMS 229

BOOK NOTICES AND REVIEWS 230

BOOKS AND PAMPHLETS RECEIVED 235

OBITUARIES 238

METEOROLOGICAL OBSERVATIONS 240

MORTALITY REPORT.—City of St. Louis 240

COMPARATIVE MORTALITY RATES 240

Notice to Contributors and Correspondents.

Contributions of original articles are invited from all parts of the country. The publishers offer all facilities for illustration by wood cuts or lithographs of first-class workmanship, at their own expense. At their request authors will be supplied without charge with a limited number of copies containing their articles; extra copies printed separately can be furnished only at the expense of the authors. Declined communications are preserved for six months, and will be returned within that time, on application and transmission of the necessary postage.

Articles intended for publication in the next number should be forwarded one month prior to the date of publication. They must be contributed to this Journal exclusively.

All communications, letters, remittances, books for review, etc., should be directed to THOS. F. RUMBOLD, M. D., 1225 Washington Avenue, St. Louis.

Foreign exchanges and books for review should be sent under cover to Messrs. Williams & Norgate, 14 Hemietta Street, Convent Garden, London; or to Herr B. Hermann, Leipzig; or M. Charles Reinwald, 15 Rue des Sts. Peres, Paris.

☞The EDITORS hold themselves responsible for the Character of the Contributions, but not for the Opinions xpressed in them.

FOUGERA'S

COMPOUND IODINISED

COD LIVER OIL.

The immeasurable therapeutic superiority of this oil over all other kinds of Cod Liver Oils, sold in Europe or in this market, is due to the addition of IODINE, BROMINE and PHOSPHORUS.

This oil possesses the nourishing properties of Cod Liver Oil, and also the tonic, stimulant and alterative virtues of IODINE, BROMINE and PHOSPHORUS, which are added in such proportion as to render FOUGERA'S COD LIVER OIL FIVE TIMES STRONGER and more efficacious than pure Cod Liver Oil.

Fougera's Ready-made Mustard Plasters

DAMPNESS SPOILS THEM.

A most useful, convenient, and economical preparation always ready for immediate use. Clean, prompt in its action, and keeps unaltered in any climate, easily transported and pliable, so as to be applied to all parts and surfaces of the body. It is prepared of two strengths:—No. 1, of pure mustard; No. 2, of half mustard. Each kind put up separately, in boxes of 10 plasters. Price, 40 cents.

DIRECTIONS.—Dip the plaster, a minute or two, in cold water, and apply with a hand.

FOUGERA'S IODO-FERRO-PHOSPHATED
ELIXIR OF HORSE-RADISH.

This Elixir contains Iodine, Pyrophosphate of Iron, the active principle of anti-scorbutic and aromatic plants and acts as a *tonic, stimulant, emmenagogue,* and *a powerful regenerator of the blood.* It is an invaluable remedy for all constitutional disorders due to the impurity and poverty of the blood. One of the advantages of this new preparation consists in combining the virtues of Iodine and Iron, without the inky taste of Iodide of Iron.

Fougera's Compound Iceland Moss Paste

(Iceland Moss, Lactucarium, Ipecac and Tolu.)

Used with great success against nervous and convulsive coughs, Whooping Cough, Acute Bronchitis, Chronic Catarrh, Influenza, &c.

Wakefulness, Cough, and other sufferings in Consumption, are greatly relieved by the soothing and expectorant properties of this paste.

E. FOUGERA, Pharmacist.

No. 372 7th Street, Brooklyn, L. I.

Sole Proprietor and Manufacturer of the above to whom all special communications should be addressed.

E. FOUGERA & CO., 30 North William St., New York,

SOLE GENERAL AGENTS,

To whom all orders should be addressed.

FOR SALE BY DRUGGISTS GENERALLY.

THE

SAINT LOUIS

MEDICAL AND SURGICAL

Journal.

VOL. XXXIV.——MARCH, 1878.——No. 3.

Original Contributions.

ARTICLE XXI.

GENESIS.—III. By HIRAM CHRISTOPHER, M. D., of St. Louis.

It is the law or property of matter that it remains at rest until disturbed by some external force. This is as true of atoms as of masses. The motion of atoms in the formation or reformation of chemical compounds is occasioned by chemical attraction, but this is virtually an external force, though it inheres in matter, because it requires opposite states or conditions in the atoms attracted and united. These states or conditions may be electrical, or something akin thereto. In any view, one atom is motionless until set in motion by the attractive force excited on it by another when within the sphere of such attraction. The attraction excited by the one on the other is certainly external or foreign to the one acted on. Hence its motion is imparted and not spontaneous. The attraction is compulsory, and the same must be the motion occasioned by the attraction. There is, therefore, no spontaneity of motion in either matter or its forces. Their motion is imparted.

Now, between rest and motion a power intervenes and breaks up the one and gives rise to the other. This power is of two kinds—imparted or spontaneous; external or internal; accidental

or inherent; or natural or supernatural. These are specifically and categorically distinct and different, and to such a degree that the one kind cannot be converted into another. In the inorganic world the power that occasions motion is imparted, because matter and its forces are inert. But the motion of living matter is spontaneous, because arising from an inherent power of which spontaneity of motion is an attribute. The motion of living matter arises, therefore, from two causes or circumstances: first, because the living organism is in union with a power during its life, which possesses inherent power as an essential attribute, and second, because this power has such an attribute independent of its connection or union with a living organism whose basis structure is dead matter. Since, then, this power maintains only a temporary union or connection with matter in an organized form, it must be considered as a power foreign or external to the world of dead matter. It is, therefore, a supernatural power; and such a source or nature is all that our argument requires. Being supernatural, it cannot be a natural or physical force. It follows, then, that living organisms cannot owe their existence to the action, power or influence of physical forces.

If the motion of living matter cannot be regarded as spontaneous and as arising from its connection with a power of which spontaneity of motion is an attribute, can we consider it as being caused by the atomic or other changes which the pabulum undergoes in its assimilation to the living organism? To this view Dr. Beale, in one part of his work on Protoplasm, seems inclined when he says: "It seems to depend upon the changes in the matter itself, rather than upon impulses communicated to the particles from without;"* yet he says a little further along, on page 43, that "the moving power evidently *resides* in every particle" of the living matter. He must conceive this power as *inherent* in living matter; and if inherent, it must be spontaneous. As living matter is dead matter in new relation as respects atoms, are we to suppose that dead matter *acquires* new properties or attributes in becoming living? that life results wholly from the new relation which the atoms of matter have assumed in living matter? or that it moves because now under the control of, because in connection with, a power of which spontaneity of motion is an inherent attribute? On the last hypothesis only can all the phenom-

*Page 40.

ena of the living organism be accounted for. This is really the view of Dr. Beale; for he says on p. 116 that "it seems to me that facts cannot be accounted for *except on the hypothesis of the existence of some force or power which influences*, in a manner we do not yet understand, the ultimate elements, or the compound molecules, and *causes* them to take up particular relations to one another, so that when they combine, compounds possessing certain characters shall be formed." These compounds include every kind of organic bodies, all of which are either directly or indirectly, the work of this foreign power. What this power is will appear hereafter.

We should distinguish between the different kinds of organic matter. This distinction Dr. Beale makes very clear. He divides organic matter into 1, pabulum, 2, living matter, and 3, formed matter. When we have the simplest organism under view, we see this living matter in motion. This is the living being when enveloped by its membrane, which is "formed metter," and the product of the changes which the pabulum underwent in the organism, and possibly of the changes, as to atoms, which the living matter underwent in throwing off the formed matter. We see also the pabulum and formed matter. All the changes take place in the living matter, and are produced by the power that formed the organism, and through its functions. Now, the origin or genesis of two of these organic bodies—the first and third—can be readily and easily determined. The formed matter we see is the product of the living matter. It is formed of it and by its functions. The pabulum is formed matter, of the same genesis as the latter—the product of other living organisms. There is no other known or possible genesis for pabulum or "formed matter," and hence their origin may be considered as settled and determined. Now, if such be the genesis of these organic bodies; and as physical forces have not as yet produced even such bodies as these, it is simply impossible to believe that the organism can be the product of these forces.

That pabulum, as distinguished by Dr. Beale, is the formed matter of other living organisms, and not the germinal source of living matter, or the living organism, is evident from numerous facts. But only a few are necessary to the proof. The starch and gluten that constitute the bulk of the seeds of plants, are the products of the living vegetable organism, and are designed as food for the future plant during its period of germination, until

a time when its development into root, stem and leaf, shall no longer require such a provision. When the plant has reached this period of growth, the seed will be found exhausted. These organic bodies were consumed by the living organism imbedded in them as the germ. This is a matter of observation. It is equally true that the seed of plants are made the food of animals. Formed matter constitutes the food of animals; hence pabulum is formed matter. We know by observation, therefore, the origin or genesis of all organic bodies but the living organism. Now, whence this? Not from pabulum, since this is formed matter, and this is non-living organic matter. The failure of all experiments with formed matter in the interests of spontaneous generation, has fully and clearly demonstrated, that living organisms cannot be generated from organic matter of any kind; and the reason for the failure is plain: living matter cannot be generated from dead matter, except by a supernatural power. Dead matter, in the sense in which the term is here used, is all matter that does not present any of the phenomena of that which we call living matter. It is as virtualy dead as are the salts of the inorganic world; and hence the genesis of life is just as possible from the salt as from formed matter.

Having now satisfactorily determined the origin or genesis of all non-living organic bodies, it remains to consider further the genesis of the living. And here we meet with five phenomena which are nowhere seen but in living matter, or living organisms. They are characteristic and differential of the living substance. The first of these is, spontaneity of motion, the second, growth, the third, reproduction, the fourth, the production of formed matter, and the fifth, psychical phenomena. All these phenomena are ascribed to one and the same agent, power or intelligence, as their author: for the last are as truly the manifestation of the power that occasions the spontaneous movement of living matter, as are any, or either, of the others. The existence, therefore, of psychical phenomena in the higher forms of living organisms, proves that the power that gives rise to the phenomena of spontaneous motion, growth and reproduction in living matter, is an agent possessing intelligence. When we consider the gradual development of the organic kingdom, and observe that this living power or agent gradually manifests the phenomena of intelligence, in proportion as the structure of the organism makes this manifestation possible, we can but ascribe to the same

source the spontaneous movement of living matter and the psychical phenomena of every grade and degree of the higher animals. This the modern scientist believes and teaches, though he assigns all to a material force, and calls that force vital.

Spontaneity is an inherent attribute of that which possesses it or manifests it. As matter and physical forces have it not, in any phase in which they may appear; and as the psychical phenomena of animals exhibit spontaneity as one of the attributes of that from which these phenomena proceed; and as these phephenomena are known to rest on a spirit basis in other beings, we must assign the spontaneous motion of living matter to that power which determines the vital relation of the atoms of matter in living organisms, and this power is *spirit*, and can be nothing else. We may, therefore, say that living matter moves *because of its connection or union with spirit*, in which these phenomena inhere, and from which they proceed.

Among psychical phenomena will, or spontaneity, is prominent. This is one of the essential attributes of spirit. It is the nature of spirit to will—to move; for will is motion or activity. Indeed, it can but move, and in motion may be included the exercise of all its attributes. It is its nature also to grow, its growth of self being an increase of knowledge—an increase, as it were, of its bulk or mass. So when united to matter, that matter takes on this attribute of spirit, and grows like spirit, from within out, increases the mass or bulk of the living substance. Hence, growth is a necessary attribute of living matter, or living organisms. As the pabulum of spirit is knowledge or thought, and as the spirit grows by this, so in this process of growth, thought is produced, but thrown off like the formed matter of the living cell, or the reproduction of itself, and as these phenomena take place under the process of thinking, spirit reproduces itself as it were, in the generation of its thoughts.* Hence, the phenomenon of reproduction of *living* organisms. It is an essential attribute of the living organisms, because a reproductive agent is in connection or union with it, and imparts to it this property. Here is the foundation, as well as the reason, for these vital phenomena observed in every living organism.

That it is *will* power that causes the motion in living matter, appears still more evident from the phenomena observed in the

*Mental Philosophy. Haven, p. 100.

higher forms of living organisms, whose psychical faculties most clearly discover the true and real character of this power. The actions of these animals are confessedly self-determined, or *will*-determined. Though we can see no other evidence of this power in living matter than that which is shown by the phenomena of motion, growth, and reproduction, yet when we know that these only are manifested because of the grade of the organism, and that psychical phenomena appear when the organism has attained that structure which allows of the higher manifestations of the true nature of the life agent, it is not difficult to see that they prove the presence of such a power as we have here conceived of, as indubitably as do the *psychical* phenomena of the higher grades. Therefore as nothing but spirit thinks and wills, and thinks and wills because such is its nature, and must think and will, *so nothing has spontaneity of motion but spirit.* All else is inert and motionless. As matter, by virtue of its nature, must remain at rest, so spirit, by virtue of its nature, must move, think and will; and so powerful, active, and expressive is this nature, that even inert matter, when in union or connection with it, seems to acquire spontaneity of motion, and the power of growth and reproduction. But these appear only where the matter is living. They are not seen in "pabulum" or "formed matter;" only where the willing and thinking power resides. When this power leaves the organism, all living phenomena disappear. Though the organism may be preserved intact as to structure for an indefinite time, it never revives. It is said to be dead because all vital phenomena have disappeared. The functions have all ceased. When this forming, growing, reproducing and thinking power departed, all evidence of its presence and existence disappeared at the same time. Could it be made to return, all organs would again resume their functions. That which thinks and reasons and wills would again make its presence manifest through psychical phenomena. But we cannot recall it when once gone. There lies its great work, but it is not working. There lies the machine, but the power which worked it is gone, and gone forever. It is not a crystal that, once broken, may be reformed. The crystal we may grind to a powder, and make it wholly disappear from our sight by solution in a solvent; but we may recover it, and present it in as beautiful a form as ever. But this living form, when dead, is lost to us forever. It passes into the world of dead matter, and there continues. The

life power is not the crystalline force. As far as that once living body is concerned, the vital agent has gone out of this world, where, human learning cannot tell us. These are incontrovertible facts, and prove the supernatural origin and nature of the vital force. Between the natural and supernatural there is a wide and impassable gulf, though in the living organism they are blended for the time being.

But the modern school of scientists claim that science knows nothing of the supernatural. They disclaim all knowledge of such a realm, and deny that its assumed phenomena are legitimate objects of scientific investigation. Assumed phenomena! Who assumes that all the psychical phenomena of man are the legitimate and natural outgrowth of molecular action—of forces dynamic in "cosmic vapor," or "fires of the sun?" Assigning by assumption, and not by proof, the psychical phenomena of animals to a material origin, they protest that they know nothing of the immaterial or supernatural, and solely because they cannot by scientific methods of analysis, discover the power on which the supernatural rests. When they attempt to analyze a living organism, the living power departs on the threshold of the analysis. Not so physical forces. They remain because inseparably connected with matter. But the life agent departs by virtue of its foreign nature and origin, and remains beyond and above man's power to reach. Yet these scientists claim that psychical phenomena are indeed physical, and are careful to exclude everything that is not in their conception purely physical in its nature. If their science includes only that which they call phenomenal, and the phenomenal are only the physical, they should have excluded all psychical phenomena, or else have proved, and not assumed, their purely physical origin and basis. But this they have not done, and yet they do not hesitate to declare that mind of whatever grade or capacity, is really and wholly as much a physical phenomenon as is crystalization, or the corrosive properties of arsenious acid or the chloride of mercury. It is strange that men making, and deservedly, high claims to scientific knowledge, should seriously advocate a view of the vital force that so completely materializes one of the essential attributes of the Deity; but when one has embraced the doctrine of evolution, he has entered the field of absurdities, among which this view of the material nature of the life agent is not the least.

It is another strong proof of the wide dissimilarity between the nature and origin of organic and inorganic bodies, that the structures of the latter are simple, whilst those of the former are, all of them, complex. The body formed by the union of several crystals of different constitution, cannot be characterized as complex in structure. Nor is the crystal form an advanced structure when compared with its non-crystal form. There is no such a thing known in the world of crystals as differentiation of structure, or different organs or parts performing different functions; yet these are characteristic of organized bodies. There is, consequently, no motion, or interchange of the atoms composing inorganic substances; yet this also is characteristic of the living organism. When we shall find salts or crystals exhibiting motion and interchange of atoms; secreting and excreting widely different substances; or reproducing their like in an infant state with capacity to grow to maturity, and repeat in itself all the phenomena of the parent, it will then be time enough to believe, or affirm the identity, as to nature and origin, of inorganic bodies and organic structures. When dead matter shall be found presenting all the phenomena of the living, then the "philosopher's stone" will have been discovered, and gold have become as plentiful and as accessible as the sand on the sea shore. Then will wealth be the fortune of all, and all poverty, and every ill which wealth can banish, will disappear from among men; then alas! the philosopher may end all by converting the world and all upon it, into one grand, cosmic Kohinoor!

But if the transmutation of material substances is a physical impossibility; if the species of matter are immutable, as they certainly are; if there is no philosopher's stone for the transmutation of metals, is it not a faith that can remove mountains, that believes that psychical phenomena are but a modification of the physical? that dead matter can assume at will, or give itself, life? But spontaneous generation is still an impossibility. Matter cannot put on the form of life by its own forces.

The existence of metals and coal in the crust of the earth, and having been placed there so many ages before man came on the earth, was really prophetic of his appearance at the proper time, and anticipatory of his wants and needs when he should appear. He is the only animal on earth that can make any use of them—that has the power and intelligence to remove them, and put them in a form in which they may be made useful to him. Prof.

Huxley thinks that a being of "sufficient intelligence," such as himself, for instance, could have predicted, while viewing the potential energies of the cosmic vapor, as he stood at a convenient distance from it, the fauna of Great Britain in any year of the present century that might be named. May we not ask, what intelligence predicted the appearance of man so many geological periods before he came on the earth by putting in accessible places the vast deposits of mineral substances found in the crust of the earth? If it requires a "sufficient intelligence" to make his prediction, could the prediction of man have required less? If it requires a sufficient knowledge of molecular action, as it appeared in matter while in the form of vapor, to predict the ultimate outcome of that action at any future period, what was the grade and degree of intelligence that conceived of all this work, and set in motion such agencies as would in due time accomplish all the purposes of that intelligence? Now, since intelligence is required for both of these predictions; and since the intelligence of Mr. Huxley's scientist is one of the results of molecular action, having its origin, possibly, in "the cosmic vapor," what molecular action gave rise to the intelligence that conceived of molecular action as a dynamic force, and set it in motion to work out certain results; whence, I ask, this primary or pro-natural intelligence? If no intelligence ante-dated the existence of "the cosmic vapor;" and if all the psychical faculties of man are the outcome of molecular action, then it must be admitted that we have in this action, a force that rises as it increases, and increases as it rises, and to whose increase and rising there seems to be no possible limit; so that we may look forward to the time when its work will develop infinite intelligence! Thus would we be told that it is rational and scientific to expect infinite intelligence in the end; but wholly foolish and unscientific to place it at the beginning!

ARTICLE XXII.

ALCOHOL.* By SIMEON E. BUCKNELL, M. D., of Shipman, Ill.

Nearly four years ago, Dr. Willard Parker, in some remarks he made before the New York Neurological Society, said that the most important subject then before the public was the use of alcohol. This question, as you all know, still attracts universal attention. It was my privilege recently, to hear a very able man make the assertion, that no physicians had any excuse for even prescribing alcohol, and that all such prescribing was a mere form of quackery. I believed these sentiments expressed his honest convictions.

The questions, what constitutes the proper use of alcohol? and what are the effects of alcohol on the human system? are being argued and discussed all over our country. These questions are of peculiar interest to physicians as a class; for it is to them that the people will ultimately look for their proper solution. It is not my intention in this paper to discuss the evils of intemperance, for such a discussion would be out of place. I shall confine myself to the consideration of the questions: What is alcohol? and what are its effects on the system? Perhaps no one man has done more towards answering these questions, than Dr. Wm. H. Hammond, of New York. As early as 1856, he commenced an examination of the subject by instituting a series of experiments upon himself. In this paper, in consequence of their value and the bearing they have on our subject, I shall first call attention to a number of exceedingly interesting and instructive experiments made by him, and which he describes in a paper read in May, 1874, before the New York Neurological Society. He administered to a dog three ounces of strong alcohol, diluted with an equal quantity of water. Immediately on receiving it, the animal retired into the corner of the room and laid down. At the end of five minutes, it was with difficulty that the animal could be induced to walk about the apartment, though up to this time its gait was natural. In fifty-eight seconds after the administration of the stimulant, the alcohol was detected

* Read before the Macoupin County Medical Society.

on its breath. In eight minutes, the gait was slightly staggering, occasioned by incipient paralysis of posterior extremities. The paralysis continued to increase until, after fourteen minutes, at which time the animal could not stand. Sensibility was still present, though evidently lessened in acuteness; the animal involuntarily closing its eyes when the motion of striking was made before them. The respiration was hurried, and the heart's action was greatly accelerated. The pupils were at first contracted, but in fifteen minutes became dilated and remained so throughout the experiment. In half an hour the animal was in a state of profound coma; all sensibility was obliterated. The limbs were in a state of complete relaxation; respiration hurried; the heart beat rapidly, but feebly. The urine and fæces passed involuntarily, and the temperature as indicated by a thermometer placed in the rectum, had fallen from 101° F., which it was before the ingestion of the alcohol, to 98.5° F. The animal remained in a comatose condition and died in an hour and twenty-two minutes after the administration of the alcohol. In a second and similar experiment, Dr. Hammond reduced the dose to one ounce of alcohol diluted as before, this dog being a much larger animal. In five minutes, the motion of the heart was accelerated, as was also the respiration; and the pupils began to contract. In twelve minutes, the gait of the animal became unsteady, and strong efforts were necessary in order to maintain the standing position. This condition lasted twenty-two minutes, when the pupils began to dilate, there being also a loss of sensibility and partial paralysis of the posterior parts of the body, locomotion being impossible. Respiration was very irregular, sometimes being quite rapid, and then ceasing for several seconds, and then being quite slow. The pulse still rapid, but very much weaker than at first. In less than an hour the animal was in a state of light coma, which lasted twenty minutes. Recovery took place gradually, the phenomena of intoxication disappearing in an inverse order to their supervention.

Wishing to know whether the alcohol increased or diminished the amount of blood circulating within the cranium, the following very interesting experiments were instituted. He trephined a dog, and introduced into the opening thus made into the skull a cephalohæmometer. He then administered an ounce of alcohol diluted as before. In fifty seconds he detected alcohol in the expired air of the animal. In less than five minutes, the heart beat

faster, respiration was quickened and the pupils began to contract; still there was no increase in the inter-cranial pressure and apparently no increase in the amount of blood in the brain. In six minutes the dog's gait was unsteady, but there was as yet no paralysis. After the elapse of seventeen minutes the fluid in the tube of the instrument began to rise, and with this increase of inter-cranial pressure; paralysis of the posterior extremities supervened, and, as the amount of blood in the cranium continued to increase, the paralysis extended, the pupils dilated, and a coma ensued. The return to sensibility and the power of motion were attended with a diminution of the inter-cranial pressure and were apparently directly dependent thereon. I repeated, he says, this interesting and very instructive experiment twice with the same identical results.

Another curious and not unimportant experiment performed by the Doctor was as follows: He divided all the tissues of both posterior legs of a frog, except the sciatic nerves, and these he isolated. He then plunged both limbs into strong alcohol; shock ensued in eleven seconds and lasted five minutes. During this time the animal was insensible and anæsthetic. He also performed the converse of this experiment, exsecting the sciatic nerves and leaving the other tissues intact. The limbs were then put into alcohol as before, but in this case the animal was unaffected for twenty-two minutes.

At the risk of being tedious I will venture to call attention to one more very interesting and decisive experiment performed by Dr. Hammond. He says: "I caused a rabbit to be fed largely every day for ten days, on bread well soaked in whisky. In the course of that time the animal received nearly a pint of good whisky, and, beyond being somewhat stupefied, it did not seem to be seriously inconvenienced. At the end of that time the animal was killed. I then removed the brain, spinal cord, and all the large nerves, and treated them separately with distilled water after cutting them in small pieces. They were then thrown on a filter and strongly pressed. The three separate portions of liquid extract were then distilled several times, and finally treated with quick lime, and again distilled. The three distillates were then put into three separate test tubes, and when treated with a solution of bichromate of potassia in sulphuric acid, yielded a dark green color, the characteristic test for alcohol."

It is noticeable in these experiments that the primary effect

of alcohol on the system seems to be the influence it exerts over the circulation. The first question, therefore, I propose for consideration in this connection is, How does alcohol produce its effect upon the circulation? Is it, as some would have us believe, a true cardiac stimulant, or is it not? This would seem to be an important question, and we, as physicians, should seek its solution, uninfluenced by prejudice or sentiment.

That all the blood vessels, and especially the capillaries, contract on their contents, and that this contractile force is an important element in accomplishing the circulation of the blood, is, I believe, generally admitted. That these vessels may be unduly dilated and contracted, is also a conceded fact, and that the principal function of the sympathetic nerve is to govern this dilation and contraction has, I think, been clearly shown by a number of able writers. As far back as 1856 Dr. Draper, in his physiology, published in that year, says on page 347: "The sympathetic, by virtue of its distribution to the arteries and small blood vessels, exerts a power over the passage of blood through them by influencing their contractibility and thereby their diameter." Dr. Dalton, in a recent edition of his physiology, shows that section of the sympathetic in the neck causes dilatation of the blood vessels of the eye, ear and head, while stimulation of the filaments of this nerve causes contraction of the capillaries.

Dr. Richardson, of London, in a recent work, uses the following language: "If the filaments of the sympathetic be irritated, the capillaries contract, and if the nervous force of these centers is reduced, the capillaries are dilated, and become so unduly filled with blood, that the parts which they supply, if they are visible, as in the cheek for example, will be seen to be flushed from the excess of blood they contain. The arterial tension is governed by these centers of organic nervous life, as the prime force of a time-piece is governed by the pendulum. We may conclude, then, that any substance which dilates the capillaries does so by exerting a paralyzing effect upon the nerve centers of organic life."

That alcohol dilates the capillaries there is no question. That it must exert, therefore, a paralyzing effect on the sympathetic nervous system, is equally clear, and this fact is still farther demonstrated by the fact that it produces exactly the same condition in the eye, as produced by section of the sympathetic in the neck. In the normal state the heart has to overcome the resist-

ance offered by the contractile force of the capillaries. If, however, this resistance is suddenly removed we would naturally expect an increase in the number of pulsations per minute with a decline in the volume and force of the pulse, and this is just what does takes place.

Says an able writer, on this subject: "At one time it was imagined that alcohol acted immediately on the heart by stimulating it to increased motion, and from this false idea many erroneous conclusions have been drawn. But we have now learned that there exists many chemical bodies which act in the same way as alcohol, and their effect is not to stimulate the heart but to weaken the contractile force of the minute blood vessels. These bodies, in fact, produce a paralysis of the organic nervous supply of the vessels, which compose the minute vascular structure. These vessels when paralyzed offer insufficient resistance to the force of heart, and the pulsating organ thus liberated, like the main-spring of a clock from which the resistance has been removed, quickens into violent action, giving evidence not of increased force but of wasted power." Does clinical evidence tend to show that alcohol acts as a stimulant? Does it tend to show that when given to the weak and debilitated it gives to them increased force? We are told in the *British Medical Journal* of October, 1860, that the physician, whom Dr. Todd (the great high priest of stimulism) entrusted with the task of analyzing his own records of hospital practice, asserted that the mortality from fevers in the hospital attended by Dr. Todd was in a marked degree greater than in any other fever hospital in Great Britain. In the same journal for December, 1865, we are told that the statistics of the London hospital, then recently published, show a large increase in the use of alcoholic stimulants, and with it a closely co-incident ratio of increase in mortality. Dr. Perry, of the Royal Infirmary of Glasgow, states that out of 534 cases of typhus, treated with wine in that institution, there were 138 deaths, while out of 497 cases of the same disease in the same institution, treated without alcohol, there were only 9 deaths.

Facts like these and others of a similar nature are tending to cause a powerful reaction in the professional mind. Says a very able English physician on this subject: "I cannot, by any argument yet presented to me, admit alcohol by any sign that should distinguish it from other chemical substances of the paralyzing narcotic class. It is assumed by most persons that alco-

hol gives strength, and we hear feeble persons saying that they are being kept up by stimulants; this means that they are kept down by them, for the evidence is all-perfect that alcohol gives no potential power to either brain or muscle." We are forced to conclude, then, that alcohol *is not* a cardiac stimulant, but that it acts upon the circulatory system by partially paralyzing the centers of the great organic nerve. We believe this conclusion will bear scrutiny and cannot be successfully contradicted.

The second question we shall consider is, does alcohol elevate the temperature of the body? Liebig taught us to believe that alcohol was burnt or oxidized in the system, and thereby occasioned the increase of animal temperature. Dr. Draper, in his physiology, published in 1866, also takes this view. On page 20 of this work we find the following language: "By using highly combustible food, such as the various alcoholic preparations, the animal heat can be considerably increased. The chemical constitution of alcohol being such, that in the act of burning, carbonic acid and water are produced with the liberation of much heat." This theory has long ago been exploded, as it has been shown that the amount of carbonic acid and water in the expired air has been found not merely unincreased, but absolutely diminished in quantity after the administration of alcohol. In fact, it has never been shown that the direct oxidation of carbon and hydrogen ever takes place in the system; but on the contrary recent experiments would seem to show that oxidation is not destructive, but a constructive process, and that carbonic acid is the result of the breaking up or dissolution of highly complicated organic compounds. The whole theory of animal heat is entirely changed, and the new theory is, I believe, founded on much more substantial grounds.

But to come back to our subject. Many still believe that alcohol does increase the bodily temperature. It is shown in the first of Dr. Hammond's experiments, which is given in the beginning of this paper, that the temperature fell, under the influence of alcohol, from 101° F. to 98.5° F., or two degrees and a half. Dr De Marmon, of Kings Bridge, N. Y., has shown, in the case of two boys who took an overdose of alcohol, that the temperature fell in one case from 98° F. to 94° F., and in the other from 98° F. to 93.5° F. Dr. Richardson, in a number of interesting experiments upon birds and mammals, has shown that the temperature has been reduced in the former from four to six degrees, and in the

latter from two to four. Dr. Parks, of London, in a number of experiments, made by himself and communicated to the Royal Society, has shown that alcohol never increases the animal temperature, but reduces it very slightly. The universal experience of those who have been exposed to extreme cold, confirm these results. The monks of St. Bernard, the Arctic voyagers, and the leaders of the Napoleonic campaign in Russia, all unite in testifying that death from cold is greatly accelerated by the use of alcohol. How, then, does alcohol reduce the normal temperature of the body?

Dr. John T. Hodgen, of St. Louis, some years ago gave before the St. Louis Medical Society what were then regarded as very novel physiological views on this subject. These views prove the Doctor to be an accurate observer, a profound thinker, and a sound reasoner. "Exposure of the body," says the Doctor, "to a very low temperature, causes the surface to become almost as cold as ice, while the internal organs are preserved at their normal temperature; contraction of the capillaries under the influence of cold forces the blood to the internal organs, and this is no doubt Nature's means of preserving from harm the organs essential to life, for it is known that warm blooded animals will perish if the temperature is reduced but a few degrees. If, while the body is yet exposed to cold, a glass of brandy be taken, its influence upon the nerves causes relaxation of the capillaries, which permits the warm blood from the interior to circulate over the surface. Here it radiates its heat, and returning the cooled blood, exerts a baneful effect upon the vital organs." If, now, this process be continued, it must soon reduce the temperature of the blood to a dangerous, if not to a fatal degree. We see, also, how it is possible for different experimenters to arrive at different results in this matter. If the temperature of the external air is not very low, or if the air is surcharged with moisture, radiation will not take place very rapidly, and the temperature will not be reduced to the same extent. That this reduction of temperature is caused by the action of alcohol on the organic nervous centers, is still more certainly demonstrated by the result of an experiment by Dr. Binz, who has shown that the antipyretic action of alcohol is not exerted through the cerebro-spinal system, since it takes place after section of the cervical portion of the spinal cord. We are forced to conclude, then, that alcohol does not increase the animal heat; but that, on the contrary, through its

sedative influence upon the centers of the organic nervous system, it occasions a diminution of the animal heat, and that this diminution is in an inverse ratio to the temperature of the external air, and also to the amount of moisture it may contain, since moist air checks radiation of heat.

The third question we will consider is: What becomes of the alcohol after it enters the system?

That it is not all oxidized as Liebig and others supposed, has, I think, been clearly proven. That no portion of it is oxidized is demonstrable from the fact that it does not increase the heat of the body; for oxidation cannot be accomplished without the production of heat. Furthermore, at the normal temperature of the body, alcohol has no affinity for oxygen. That it undergoes *no chemical change whatever* in the body, is rendered almost certain from a number of reasons. In the first place all chemical changes are accompianed by the production of heat, and from the nature of heat, it is impossible that it should be otherwise. In the next place, that it is eliminated from the body unchanged cannot be denied. Dr. Hammond, in two of his experiments, to which I have already called your attention, detected, in less than a minute, alcohol on the breath of the animal. It has also been shown that alcohol may be found in the expired air long after the last dose has been taken. The test for alcohol, (chromic acid) has revealed the presence of alcohol in the condensed perspiration months after its administratiou had ceased. In Dr. Hammond's fourth experiment, previously mentioned, a very appreciable amount of alcohol unchanged was found in the brain, spinal cord and larger nerves of a rabbit, which had been fed on bread and alcohol, while none were found in the blood. This and one previous experiment on the legs of a frog, show the great affinity which alcohol has for these tissues. I am persuaded that it has still greater affinity for the gray nervous matter, which composes the organic nerve centers, and had this portion of the nervous system been treated in the same way, I believe that it would have yielded a still larger per centage of alcohol. We are told by Dr. Peters of New York, and by other able anatomists, that they have discovered alcohol in considerable quantities in the brain of drunkards. Says Dr. Peters, "the brain of those persons who had been habitual drinkers, invariably presented a very hard white appearance, as if it had been preserved in alcohol, and it had not infrequently happened that the brain of hard

drinkers has exhaled a strong odor of alcohol." Lallemand, Perren and Duroy, have given indisputable evidence that a large portion of the alcohol taken into the stomach is eliminated from the system unchanged.

Dupre, Binz and others have attempted to show that all of the alcohol is not eliminated in this way.

Dupre sums up the results from two series of experiments in the following language: "The amount of alcohol eliminated daily does not increase with the continuance of the alcoholic diet, therefore all the alcohol consumed daily must of necessity be disposed of daily, and as it is not eliminated in that time, it must be destroyed in the system." We will accept Dr. Dupre's conclusion with a slight modification. If the powers of elimination are taxed to the utmost, and still more matter be introduced into the system, one of two things must follow, either the substance will be destroyed in the system, or it will *accumulate* in the system. We will therefore slighly amend Dr. Dupre's statement so as to read in this wise: That the amount of alcohol consumed daily, must be disposed of daily, and as it is not all eliminated, it must either be destroyed or be accumulated in the system; that the evidence in favor of this last supposition is shown from the fact that elimination continues long after the ingestion has ceased. To sum up briefly, then, the evidence on this head we concluded: *First*, that it can, and has been proven beyond all doubt, that a very considerable portion of the alcohol taken into the system, is eliminated unchanged, it having been found in the secretions of the lungs, kidneys and skin.

Secondly, that this elimination commences almost immediately after the administration of the alcohol, and continues long after its administration has ceased.

Thirdly, alcohol has been found unchanged in the brain, spinal cord, and nerves, and also in the liver, spleen and other organs.

Fourthly, no proof has ever been adduced to show that it undergoes any chemical change while in the body. The evidence all being on one side, we are led strongly to believe that all or nearly all the substance is eliminated from the body unchanged.

A fourth question for our consideration is: Are there any grounds for regarding alcohol as a food? We find that even in moderate doses it reduces the animal temperature, which no other food does. We find that, even when taken in moderation

for any considerable length of time, it weakens the vital force; for all experience tends to show that, other things being equal, a man who never drinks can stand more physical or mental exertion than a man who does. Says Dr. Willard Parker, of New York: "I don't see how we can make food out of it. When a patient comes under our charge we know, if he has been a drinking man, that his chances of recovery are not so good as those of a temperate man would be under similar circumstances." "There is," he continues "a fearful cutting short of life and usefulness by the use of alcoholic liquors." This can hardly be said of any other form of food. Dr. Clymer, of New York City, speaks on this subject thus: "Does alcohol deserve the name of a food? Is it constructively utilized in the system? No proof has, to my mind, yet been brought forward to sustain the assertion. All clinical evidence is opposed to it, even Dr. Anstie admits that the evidence supports the belief that alcohol is active, rather in the direction of repressing, than forwarding the growth of tissue. That alcohol builds up and maintains tissues is at least unproven and I believe untrue." What then are the foundations for the theory that alcohol is a food?

This assertion rests on some experiments which Dr. Hammond made upon himself and which led him to make the assertion that he gained weight when taking alcohol upon a diet which had previously proven insufficient by itself to maintain his bodily weight. Now this result is just what we should expect. The experiments of quite a number have shown that the amount o carbonic acid and water exhaled is considerably diminished when alcohol is taken into the system. Hammond and Böcker have both shown that under the influence of alcohol the amount of urea and phosphoric acid is diminished. These are all effete substances and the products of decay, and these two experiments taken together only tend to prove what we would naturally infer, namely, that alcohol interferes with and retards the process of excretion, and that, under its influence, these baneful products of decomposition are retained in the system. It would seem a most natural and rational deduction to infer that this diminution in the excretion of these products of tissue decay and this gain in the bodily weight, bore a direct relation to each other, and that both were occasioned by some interference with the function of excretion. This explanation would certainly seem much more in accordance with the

whole evidence than either of the others. We are led to conclude, then, that there are no good reasons for believing alcohol to be a food, or that it in any way resembles a food in its action upon the system.

Is alcohol then a poison, and if so, how does it produce its noxious effects upon the animal economy? It has been shown that alcohol even in very small doses produces partial paralysis of the sympathetic nerve, thereby causing congestion of the minute vascular structures; that with larger doses the congestion extends to the brain; and that the increase of blood in the skull is sufficient to produce such intercranial pressure as is followed by complete paralysis, loss of all sensibility, coma, and death. These certainly look like the effects of a poison, and a very potent one at that. So great is its affinity for new tissue and so profound is its action upon it, that when it merely comes in contact with the terminal branches of a nerve, shock ensues almost immediately, and is followed by complete insensibility and in some cases death. It has been found to exist in the brain and nervous tissue after death unchanged. It changes the nature of these tissues, causing them to grow hard and firm, producing the condition known as sclerosis. Dr. Austie says of it: "When given in too large quantities it becomes a violent narcotic poison, the more dangerous because it cannot be eliminated very rapidly."

Dr. Peters, of New York, in speaking in reference to the great firmness of the brain in those who have indulged this appetite, says, that "as alcohol will coagulate abbumen, and as the brain is largely composed of albuminous substances, it is probably on account of this property of alcohol that it renders the brain so hard and firm." Says Dr. Clymer on this topic: "Do not the experiments of Dr. Hammond and others teach us that the action of alcohol is that of a local poison? That its toxic effect is particularly expended on the connective tissue, mortar bed of the organs? Transformation of this tissue takes place gradually and then happens the morbid condition known as substitution in its elementary composition, and we have the result known as sclerosis. That alcohol acts as a local poison is, I conceive, undeniable, and I base my belief on experimental, clinical, and pathological researches."

I might quote other very able authorities on this subject in proof of this view, but I will not take up your time in this way.

It would seem, however, that Carpenter's assertion that alcohol changes both chemically and physically the brain and nerve tissue, is undoubtedly true, and capable of demonstration. I will not at this time attempt to describe any of the diseases and morbid conditions to which the use of alcohol gives rise, as any one of these affections would, of itself, afford an ample topic for our consideration. I will only add that a very eminent English physician has asserted that a majority of the civilized portion of the world's inhabitants are suffering to-day from its blighting effects. We conclude then that it is a posion of a depressive and narcotic nature; that its first effects are manifest in the organic nerve centers, and hat it subsequently affects other nerve tissue in two ways, first, by intercranial pressure caused by the dilated state of the capillaries of the brain; and secondly, through its affinity for nerve tissue, it causes chemical and physical changes in the nerve substance, which changes are followed by the entire or partial destruction of function. The first effect is transitory, the second permanent in its nature.

Under these circumstances the question will arise, Are physicians ever justified in prescribing alcohol? and secondly, Under what circumstances might it to be given? To the first part of the question I answer most emphatically, yes. There are two qualities possessed by alcohol which make it a very important remedial agent. First, it dilates the capillaries, and secondly, it is absorbed with great facility. Now, it is a fact that nearly all that class of poisons which occasion fevers and zymotic diseases are irritants to the organic nerve centers; hence they cause the contraction of the capillaries and arrest secretion—arrested secretion being always caused by irritation of the filaments of the sympathetic nerve. We have in alcohol a sure and certain sedative to the centers of the organic nervous system; hence it always dilates the capillaries and excites secretion; and on account of the facility with with which it is absorbed, even when the vital powers are very low, it becomes a very important remedy; for, by overcoming the contractile resistance of the minute vessels, it enables an enfeebled heart to accomplish what would otherwise have proved impossible. I would, therefore, give it in collapse from cholera, and in severe cases of cholera morbus. It is very efficient in diphtheria. I have found it very good in the cold stage of a congestive chill. I would give it, in fact, in nearly all those diseases which I believe to depend on irritation of the

organic centers, especially if I desired immediate and prompt action, but I would follow the advice of the late Dr. Anstie, and give it in doses just too small to produce flushing of the face or sweating of the brow, and like Dr. Peters, of New York, I would prescribe it in fixed quantities just as I would arsenic or strychnia, and after its work was done, order it stopped immediately, as I would any other powerful agent of the materia medica.

ARTICLE XXIII.

PLASTER JACKET IN FRACTURES OF THE SPINE. By Prof. J. T. HODGEN, M. D., of St. Louis.

[Extracted from a phonographic report of a lecture delivered at the St. Louis Medical College, Feb. 7th, 1878.]

I have recently treated two cases of fracture of the spine, with the plaster of Paris jacket. One in the dorsal and the other in the lumbar region.

The first without paralysis, but accompanied by fracture of the sternum. The last being a fracture of the third lumbar vertebra with displacement, deformity, and paralysis.

The fracture in the dorsal region was at the fifth or sixth dorsal, and there was no displacement. Now, although the circular turns of the plaster bandage cannot be made to reach sufficiently above the sixth dorsal vertebra to afford any direct support to the vertebral column, it must be remembered that the ribs connect with the dorsal vertebræ, pass obliquely and downward and forward to join the sternum and may be used to support the upper dorsal vertebra, so that by encasing the upper part of the pelvis the abdomen and the lower two-thirds of the chest in a plaster bandage, we may efficiently support the spine and secure the rest to the part so important to repair, without impairing the general health of the patient by confining him to bed. I will say that the case in which the fracture existed in the dorsal region, has progressed without an unfavorable symptom and is now well, after two months and a half, while in the other case, the lumbar fracture, the paralysis still remains, the urine

must be drawn off; no bed sores have formed and there is not the slightest improvement in the paralytic condition, though it was hoped the general health may be improved by allowing him to be carried about in the open air. At the present writing, three months after the occurrence of the accident, the case is not promising, though we certainly believe a plaster jacket has prevented the occurrence of bed sores.

ARTICLE XXIV.

TWO CASES OF OVARIOTOMY.—RECOVERY. By A. V. BANES, M. D., of St. Joseph, Mo.

CASE 1.—Hannah Peterson, aged 23 years, came to consult me in regard to a tumor, in the right iliac region, which had been gradually enlarging for the past four years, and was at the time of examination, about eighteen inches in circumefrence. It proved to be an ovarian cyst. She was importunate in her demands for its removal. After explaining to her the dangers incident to an operation of that kind, I appointed Nov. 27th, 1877, as the day for the operation (it being the seventh day after menstruation), which was accordingly performed at St. Joseph Medical Hospital, in presence of Drs. Catlett, Smith, Knight, Doyle, France, Christopher, Geiger and Craig and nine medical students. An incision was made in the linea alba, from umbilicus to pubis, under a strong carbolic spray. When the cyst was exposed, it was found to be firmly attached by a short pedicle to the broad ligament, unusually high up. To facilitate the operation, the incision was prolonged upward and outward on the right side, making its entire length nine inches. The cyst was tapped at its lower portion with a large trocar, connected with rubber tubing, and straw-colored fluid, to the amount of ten pounds, was drawn off. The pedicle was pierced through the central portion, with a needle carrying double-strong carbolized, hempen ligature. The ligatures were then tied firmly, one on one side and the other on the other side of the pedicle, the ends being cut off close to

the knots. The pedicle was then divided within a half-inch of ligatures, and the stump returned to cavity. Nine interrupted carbolized sutures were used to close the incision. This was strengthened by plasters which passed two-thirds around the body. Carbolized oil (℥ ii of carbolic acid to the pint of sweet oil) was used to manipulate the cyst and bowels. The operation consumed fifty-five minutes.

The tumor was unilocular and weighed twelve pounds. The incision was left open at its lower portion, for drainage. A wet compress was placed over the wound, supported by a broad flannel bandage. The patient was then put into bed, and warm applications applied to feet and body.

Nov. 27th, 5.30 P. M. Patient vomiting from effects of chloroform; ½ gr. Morphiæ sulph. was administered, hypodermically. 8 P. M. Resting well. Pulse 114, Temperature 91.

Nov. 28th, 10 A. M. Used catheter and drew off one pint of urine; passed a comfortable night. Intense thirst; ordered ice to be freely given.

Nov. 29th, 10 A. M. Suffering great pain in bowels; directed a medical student to keep her under influence of Morphia, hypodermically, to control all pain.

Nov. 30th, 2 P. M. Temp. 98½, pulse 120; great irritability of stomach; ordered 5 grs sub. Nit. Bismuth (Squibb's) every hour until nausea was controlled.

Dec. 1st. Patient cheerful; passed a comfortable night. The catheter was still employed.

Dec. 2nd. Temp. 86½, pulse 120. Tongue moist and thirst decreasing; feels very weak; ordered mutton broth and eggnog.

Dec. 3rd. Temp. 95, pulse 120; complains of severe pain in the lower portion of the bowels. 4 grs Squibb's Opii, in the form of a suppository, was introduced in the rectum. This soon gave the desired relief.

Pulse and temp. remained about the same until Dec. 5th, when pulse came down to 96, temp. to 94. Extracted the sutures and applied fresh plasters. The whole tract of the incision healed by first intention. The small amount of pus effused into the abdomnal cavity never gave rise to any pyæmic symptoms.

Dec. 6th. Ordered large dose of oil; first action that the patient has had since operation (10th day).

Feb. 6th, 1878. Patient doing light housework (72nd day).

CASE II.—Kate Vogel, aged nineteen; single; has gradually increased in size for the last five years; history obscure; never noticed commencement of tumor in either iliac region; first observed whole surface of abdomen gradually enlarging; the tumor before removal, filling up the cavity of the pelvis and abdomen, extending up as far as ensiform cartilage. Respiration greatly impeded on slightest exertion, and the size of the abdomen appeared larger than that of a women at full term of pregnancy. This tumor was also unilocular and with its contents, weighed forty-three pounds.

The operation for its extirpation was performed six days after menstrution, in the presence and with the assistance of Drs. Howard, Malin, Knight, Doyle, Christopher and Craig.

An explorative incision was made in the linea alba, from umbilicus to pubis. On exposure of the cyst, and finding it tense and immovable, I extended the incision upward to the ensiform cartilage. When the tumor was fully exposed, there were found, ramifying over its surface, a large number of veins, some of them larger than a goose quill. The cyst was tapped at its most dependent portion, and the contents drawn off. The fluid was of a brawn or coffee color. The pedicle was transfixed as in the former case in the center by a needle, armed with a double hempen ligature, strongly carbolized, and tied on each side as firmly as could be drawn, and the ligatures cut off close to the knots. A small artery sprung at side of the pedicle, and gave rise to slight hemorrhage, but this was promptly secured by a light silken ligature. The pedicle was cut as near the ligature as was consistent with safety, and after the delay of a reasonable time to see if the ligatures remained intact, and the stump free from hemorrhage, it was returned to the abdominal cavity. The incision was closed with twelve interrupted carbolized sutures (the peritoneum not being included), and strips of moleskin plaster passed two-thirds around body. A compress, saturated with carbolized oil, was placed over the line of the incision, supported by a flannel bandage. The patient was then placed in bed and warm applications applied to feet. The operation and dressings occupied three-quarters of an hour.

Before opening the cavity, a strong carbolic spray was thrown over line of incision, by Tiemann's excellent steam atomizer. This was continued until the cavity was closed. In manipulating the cyst, I kept my hands, as did also my assistants, thor-

oughly covered with carbolized oil (℥ ii carbolic acid to the pint of sweet oil). The operation was completed at 4 P. M., January 2nd, 1878. I glean the following, from a note-book kept by a medical student:

Jan. 2nd. 4.30 P. M. Vomited from the effects of chloroform; complained of severe pains in bowels; ordered ¼ gr. Morphiæ Sulphate, hypodermically. 6 P. M. Resting well; pulse 90, full and soft; temperature 93.

Jan. 3rd. 8 A. M. Passed a comfortable night; feels cheerful, but complains of thirst; ordered ice, *ad libitum*. Pulse 108, temp. 99. 8 P. M. Excruciating pain in bowels; injected, hypodermically, ¼ gr. Morphiæ; feels very weak, ordered beef essence and eggnog occasionally.

Jan. 4th. 8 A. M. Rested well; pulse 125; temp. 98. Prescribed Tr. veratrum viridi (Norwood's), three drops every three hours; surface of body to be sponged frequently with warm alcohol. 10.30 P. M. Pain returned with increased violence, respiration of a sighing character; expression of countenance anxious, tongue red around the edges and very dry. Pulse 130, Temp., 99½. Ordered a suppository containing 5 grs. Squibb's Opii; veratrum viridi to be continued as before, and an emulsion of turpentine to be given every six hours.

Jan. 5th, 9:30 A. M. Pulse 120, temp. 98; tongue moist and thirst decreasing; respiration more natural.

Jan. 6th, 9 A. M. Pulse 112, temp., 97½; passed a comfortable night; bright and hopeful, wound looking well; extracted four of the upper sutures. 10 P. M. Pulse 115, temp., 98. Bowels irratable; has had nine actions of a liquid character, within four hours. Prescribed suppositories, each containing 5 grains Squibb's opii and 4 grains tannic acid, to be used every six hours, if necessary.

Jan. 7th. 10 A. M Resting well; pulse 120, temp., 99. Very slight tympanitis, but no pain on pressure. 11 P. M. Lower portion of wound suppurating, but entire tract healthy.

Jan. 8th. Slept all night. Pulse 120, temp., 99½; both continued about the same until Jan. 18th, 8 A. M., when pulse was 96, temp. 98. Extracted remaining sutures; wound healed by first intention with exception of lower portion. Patient doing well and appetite good. Improvement continued till Jan. 24th, when she complained of great pain in lower portion of abdomen, near site of pedicle, accompanied by alarming distension

of bowels; injected ½ grain Morphine, hypodemically, and ordered large dose of oil, and fifteen drops of turpentine; bowels acted promptly in four hours, passing large quantities of gas and fæces.

Jan. 25. Patient passed a comfortable night and says she is well.

At present time, (38th day), Feb. 7th, the patient is rapidly recovering.

Note.—I attribute the recovery of both patients mainly to the fact of their being cared for at my residence, where I could note every symptom, and instantly provide for all exigencies.—A. V. B.

Article XXV.

Review on the Treatment of Fracture of the Femur. By Edw. Borck, M. D., of St. Louis. [With three Illustrations.]

After long study and observation, I gave in the January number of the St. Louis Medical and Surgical Journal, my method of treating fracture of the femur in some cases; and advocated therein the double inclined plane, for reasons for which the reader is referred to the above number of the Journal. A marvelous coincidence brought the January number of the *Medical Record* of New York, into my hands, in which I find on the first page, a lecture on fractures of the shaft of the femur in children, by our distinguished surgeon, Frank H. Hamilton, M. D., with a wood cut illustrating his method, and advocating precisely the reverse of the course that I advocated. My method is intended only for youths and adults. For infants and small children it is not practicable. Dr. Hamilton's ar-article refers to children only, but the fact that his opinion should be so directly reverse to my own, was to me of great interest. I, therefore, eagerly read and studied his article, to find, perhaps, my own mistakes, for it is only by interchanging our views, and by giving each other the benefit of our experience, that we learn. It is this desire that induces me to write

this paper, and bring before the profession a survey of the subject.

In my article, mentioned above, I pointed out why the long splints are not well adapted. The reason stated was, that the femur is not a straight bone from its head to the knee joint, and, therefore, the effort to keep it straight by pulling the leg outward, as is done with most of the long splints, more or less deformity must be produced. What is true as to the position of the femur in the adult, holds good in the child. Dr. Hamilton's splints, as Fig. 4 shows, is narrow above, and wider below, so as to pull the legs apart. He applies the same to children under thirteen years of age, and very correctly says: "Fractures in children are often transverse, denticulated, and especially in the very young only partially separated, not at all overlapping or greenstick. The muscles have no power to produce overlapping, and that in view of this fact the treatment should differ." Then he passes, in review, different modes of applying splints, and is particularly disgusted with the double inclined plane, charging it with shortening and with other faults. In this category he includes the lateral and coaptative splints. The doctor tried these machines often in his early days, and never had obtained a good result, except by mere accident. He seems to be exceedingly unfortunate in the treatment of fractured femurs, with the inclined plane and other apparatuses, while other surgeons, it seems, were very fortunate with these methods, and obtained what was called very good results. We only need to notice Prof. N. R. Smith, of Baltimore, who deserves great credit, and made a wide reputation with his anterior wire suspension splint, which he almost exclusively used in all cases, and Prof. John T. Hodgen, of this city, with his double inclined wire splint, which he employs in an extensive private and hospital practice, who testify as to the good results they obtain, even in children. I admit they have their faults, but they are so limited in comparison with those which attend the long splints, that they can hardly be taken in consideration. In addition the patients admire them, on account of the comparative comfort they give. I have heard more than one unfortunate exclaim that the inventors of the wire suspension splints ought to be rewarded by a monument.

Prof. Samuel D. Gross mentioned the long splint as having done admirable service in the Confederate army during the war.

I saw many of those wounded soldiers brought into our hospi als. They all looked distressed and painful, but felt relieved, and their countenance would brighten up as soon as the old splint was removed and the comfortable double inclined apparatus put on instead. I never heard any praise for the long splint from any patients. Some bear them with fortitude—that is all. The long splint may do good service when nothing better can be had, but I firmly believe that if no apparatus was used, but the limb simply bandaged together, less harm would result.

Next comes the plaster of Paris and similar splints. They are condemned on account of the danger of strangulating the tissue, causing gangrene from too tight bandaging. It has too frequently been seen that tight bandaging produces gangrene, but then there is no need that it should. Dr. Hamilton again correctly observes that "they are put on straight." A considerable amount of pressure is needed to keep the ends of the bone in their places. In this way undue pressure upon the vessels is made. In addition to these objections, these splints, like all others, become soiled by urine and fæces, which no amount of ingenuity can prevent, yet they cannot be renewed with the same ease as other splints.

I may here remark, in passing, that the plaster of Paris splints need not necessarily be put on immovable, but can be put on in such a manner as to allow of easy opening them for inspection, as well as any similar contrivance, and can be protected by varnish, yet this does not overcome all of the objection to their becoming soiled. A surgeon skilled in the application of plaster of Paris, can certainly obtain good results. Prof. E. H. Gregory, of this city, who is an admirer of this method, and I believe almost exclusively uses it, in his hospital and large private practice, tells me that he employs it on children; that he has no cause to regret adopting this method, as it serves him well, and has, in his mind, many advantages over other splints.

Dr. Hamilton then proceeds and says: "The straight position with short or coaptative splints, and the single long splint, with pulleys and weights, or such an apparatus as we have found best for adults, fail again in the case of infants and children." We will grant this.

He then describes his method, as shown in fig. 4. This method speaks for itself, and hardly needs explanation. Instead

of one long splint there are two; they are widely separated below, which it is claimed will prevent, in some measure, the soiling of the clothes, by urine and faeces. There are short coapta-

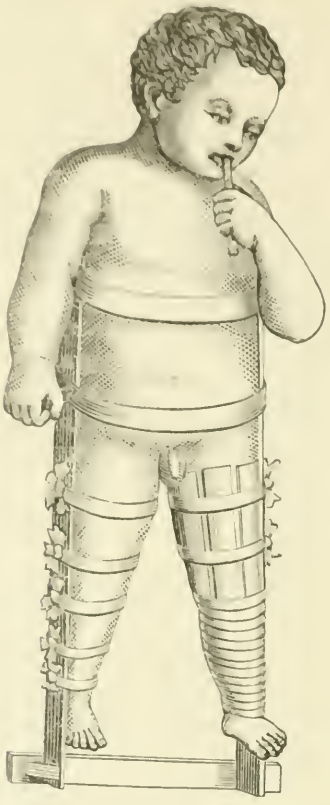


FIG. 4, Illustrative of Dr. F. H. Hamilton's Method.—*N. Y Med. Record.*

tive, splints, pads, bandages, etc.; perineal band in most cases are used, and for six year-old children there are, in addition, pulleys and weights. Here we have a most complicated arrangement—the old fashion long splint, with short coaptative splints combined. The gentleman takes great pains in describing all the details of this dressing; while it is true that upon details will depend the success of the result, particularly so of an apparatus that is to be employed, by others than the inventor, as the latter cannot be responsible for his invention, if it is not used cor-

rectly, yet these numerous details detract much from its usefulness.

But let us see whether it is actually necessary to encase a child or infant, in an apparatus like that which Dr. Hamilton recommends. I have never found such a confining method necessary, and feel sure this is the case with most surgeons for these reasons; First, in greenstick fractures, which almost always occur on the inside of the femur, the outer half of the bone acts as a splint; a single coaptative splint and bandage is all that is needed; in such a case a little moving about by the patient can do no harm while if the long splint be used, the legs drawn outward and kept straight we may do mischief; and this may be serious, which would be avoided if we allow a little more natural movement of the limbs. As we do not generally meet with oblique fracture in children, and generally have no contraction of muscle to overcome, we need no extension by pulleys and weights. If this is so, they are superfluous.

In denticulated fractures, it needs a little more care, but by no means does it need such squeezing and splinting as presented by Dr. Hamilton; at least this my experience. With all due regard for the distinguished learning of the New York gentleman, for I do consider him as one of our highest surgeons, I, for one would not be willing to try this splint in most any case, unless I learned from actual observation the good results that are claimed by the author.

The requirements of splints for any fracture, are that while they fulfill their purpose in maintaining the ends of the fractured bone in proper relation to each other, they should also keep the limb in as natural a position as possible. It should be light, easily put on and removed; all complicated apparatus render the treatment complicated, and as it is admitted by all surgical writers, that we, as a rule, have no shortening in very young children, it matters not whether we employ plaster, leather, starch or the suspension splints. This much is sure; tie a child up, harness it all over, and the more you put on, the harder the child will struggle to get it off, because of the uncomfortableness of the thing. Besides this, such is the nature of a child, that the less you bundle it up and the freer it has the use of its limbs, the sooner it will feel itself reconciled to the necessity of keeping comparatively quiet.

We seldom meet with a fractured femur in an infant. They

happen mostly after the child begins to walk, but if we should meet them, they may be treated almost without any apparatus; simply tieing the legs together is about all there is required. With children under the age of five or six, I prefer the pasteboard splint, as follows: Take a piece of muslin or paper, fasten it around the limb; for the purpose of cutting a pattern, put

.[Fig. 5—Pasteboard Splint.]

it upon a good piece of pasteboard and you have it the shape as shown in Fig. 5; reverse it, take a ruler, and cut with a sharp knife ⅜ of its thickness the lines indicated in Fig. 5. 1½ is for left leg; "a—a" meets at the inside. It may also be formed to meet and open on the ouside. Roll it up, and give it good coatings of shellac varnish, wrap up the limb in cotton batting, apply the splint, tie it with two or three ribbons or bandage, or punch holes and lace it; then tie the limbs together at the knees and the ankle, or bandage the limbs all the way up; put a soft pillow under the knees; then leave the child alone; it can be inspected every day with ease and comfort to the patient.

I had as good a result with this as with any other method. It is advisable to prepare two splints at once, so as to have one ready for change, as we well know that it is almost impossible to keep the bandages entirely clean, even if the child should makes its wants known; yet the nurse will have less trouble with this, than with any other method. The nurse can lift the limbs up with one hand, as is generally done, and sponge the parts. With children above the age of six years, when they begin to be more rational, the wire suspension splint can be used; the patient can move about; also keep pretty clean; I have found it so at least. I treated, not long ago, a little idiotic child,

five years old, for fracture of the femur, with the wire suspension double inclined splint, and nothwithstanding it was naturally very restless, the apparatus was really used as a toy by the child. When the child was ready to walk, I put on splint, Fig. 5, which was worn for some time.

In adults, the manner I have described in the January No. of this Journal, has done good service. To better understand my method, see the annexed wood-cut, Fig. 6.

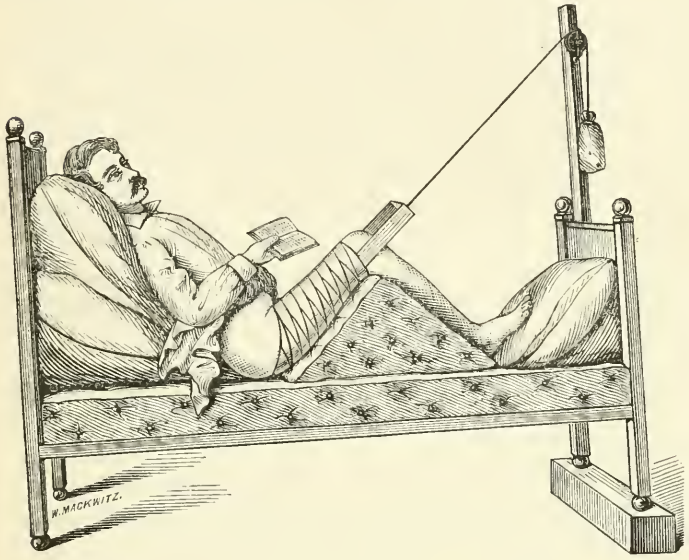


Fig. 6.—Dr. Ed'w. Borck's Method as described in the January number of The Journal, page 26.

The risk of œdema is not greatly to be feared, if this method is employed, as the limbs rest upon a soft pillow, and the foot is not bound down, but can be moved and elevated at intervals. I will also observe, that special apparatuses may be well adapted to speeial cases, but that no one apparatus is applicable to every case.

There is nothing new under the sun. Petit, Heister and Duverney, recommended long ago the extending means to be applied just above the condyles of the os femoris; see Cooper's Dict. 1830. Let us examine the views and opinions of some of the different authors:

HIPPOCRATES commences his work on fractures by giving a general opinion in all cases of fracture and dislocation, the rectifying of them by extension, in as straight a manner as possible; the word straight signifying here the most natural direction that the limb can take so that the bones can unite properly. He says, "there is no necessity for much study to set a broken bone. Any ordinary physician can perform it; but I know physicians who have the reputation of being skilled in giving proper position to the bone in binding it up, while in reality they are only showing their own ignorance." He then used extension and counter extension, and gives an account of the gutters then used, but does not much approve of them. The leg must be properly extended and put in a straight line, for it is a great disgrace and injury to exhibit a shortened thigh, and recommends that we depend upon the bandages only; and in case of swelling, (blackening) leaving the splint off entirely. He disapproves the bent position, like all others of his time.

RHACES is the only one who approves of this partially bent position, and points out the extreme importance of attending to the position of the heel.

CELSUS pronounces it impossible to heal a fractured thigh bone without deformity; the patient, he says, must ever afterwards tread upon his toes.

ALBUCASIS: He used long splints, recommends the limb to be bandaged, and the hollow places to be padded with soft material.

PAULUS AEGINETA: Patient to lie upon his back, the leg to be wrapped in a thick garment, and wool on each side to prevent moving the limb; a foot-board well curved to the foot, the whole covered with a skin.

PROF. FRANK H. HAMILTON: In both his works on general surgery and treatise on fractures: Thigh bound to long side splints, but admits that the latter experience has taght him that it is not always well to do so; for children two long splints. (Fig. 4.)

SAM'L. D. GROSS: Fracture box with splints, straight position

PHYSICK and HODGE: Long splint.

SIR A. COOPER: Patient lying on his back, limb in bent position, for fracture of neck of femur; sees no reason for not

giving it a fair trial in other fractures of that bone; in fractures of condyles, straight position.

Liston: Long splint.

Sir Charles Bell: Double inclined plane.

McIntyre: Semi-flexed position.

John Erichson: An exclusive plan of treatment should not be adopted for all cases; gives four different ways to conduct treatment, viz: flexing, extension, double incline and starch bandages.

John Ashhurst, Jr., has never seen a perfect cure; considers ½ to 1 inch a stisfactory result; thinks the weight and extension apparatus the most convenient.

Pott: Limb on its side, knee bent.

Billroth: Plaster of Paris splint; says the more practice one has applying them, the more rarely will bad results happen.

Ferguson: Straight splint.

Gosselin: Surg. Dis. of youth. Points out that patients cannot lie squarely on their backs; the attempt to do so produces pain; that shortening always exists in adults. Employs Scultet apparatus, semi-flexion; also uses Honnequin's splint. Uses extension, and prefers the movable bandages; says that none of the continuous extension apparatuses have taken rank in the practice.

Sanson: Semi-flexion.

Holmes: Children's fractures heal without any perceptible shortening or deformity; the treatment simply consists in rest on a splint with knee and hip bent.

Guersant: Simple fractures in children heal without difficulty and deformity; if there is deformity time modifies it, for men have presented themselves, with a proven record that their femur had been broken when a child, and yet when examined it could not have been decided, in many cases, that any fracture had existed. Nearly all of those individuals were fit for military duty; employs Dupuytren's method.

G. R. Parkes: Metallic fracture splints; long extension and counter extension by tubes or rods; claims no *shortening*; the fracture can be examined without interfering with this apparatus. It is a neat contrivance, and appears to be preferable to any of the old style long splints.

Prof. C. Heine, Insbruck: Plaster of Paris.

The reader is also referred to Dr. Cowling's paper on frac-

tures, read before the Central Kentucky Medical Association, last July, which contains valuable points.

RESUME.

1st. That the long splint has been used since time immemorial; the inclined plane also.

2nd. That no apparatus is perfect, and none answers for all cases, but all have their advantages and faults more or less, and each may serve well in special cases.

3rd. That we will have more or less shortening in adults, no matter what the treatment may have been; shortening rarely happens in children, for the great and wise doctor, Nature comes in time to our assistance and corrects our shortcomings.

4th. That it is not prudent to confine ourselves exclusively to one apparatus, but must admit that the surgeon who has had an extensive practice and experience with a particular apparatus will obtain better results with it, than he who apples it only occasionally.

3613 NORTH NINTH STREET.

ARTICLE XXVI.

CATARRHAL PNEUMONIA. By J. HILGARD TYNDALE, M. D., of New York.

It will be remembered that I stated in my first article, that a catarrhal process of the lung tissue proper (of the alveoli) was an impossibility, on account of certain anatomical conditions. Still the term catarrhal pneumonia, has become so fixed in our nomenclature, as to mislead many practitioners in regard to the pathological conditions passing under that name.

French physicians first drew a line of distinction between catarrhal pneumonia and croupous pneumonia. Among Germans, Ziemssen has furnished the best and most comprehensive view of the subject in his "Pleurisy and Pneumonia in Infancy."

Niemeyer, in his chapter on catarrhal pneumonia, opens by saying that since no mucous membrane with mucous follicles existed in the alveoli, it was in reality a catarrh of the finer ramifi-

cations of the bronchi. Notwithstanding the extensive researches of Bartels, Rokitansky and others, the pathology of catarrhal pneumonia has been all but comprehended. According to Rokitansky the *finer bronchi and the final termini of the bronchi* are the seat of an intense inflammatory process. Adding to this dictum the result of the investigations of other authors, we may say: It is an *acute* disease, attacking the lower lobes, beginning at their borders and subsequently passing forward and upward.

Juergensen, on the contrary, (see Ziemssen's cylopœdia,) insists that in order to comprehend the etiology of catarrhal pneumonia, it is necessary to limit the definition thus: "Catarrhal pneumonia is always a secondary process and never has its primary origin in the alveoli. As a rule, it is preceded by inflammation of the bronchial mucous membrane. The only exception to this rule is in the inhalation of strong irritants, such as chlorine, where the effect may be simultaneously produced in bronchial and alveolar mucous membrane." It will occur at once, that a question of etiology of such importance should not be left in doubt, if possible, especially since it must needs have a direct bearing upon the possibility of its being a basis for phthisis. These points will be touched upon in their proper place.

All observations tend to establish that catarrhal pneumonia is most frequent in children under five years of age.

I will here positively assert, that *catarrhal pneumonia is the only form of inflammation of the lungs ever occurring before the age of puberty.* Croupous pneumonia never occurs before this age. This may seem heresy. Much as I regret it, the extent of the subject will not allow me to enter upon this question.

Again I am satisfied that true catarrhal pneumonia can only be primary, an inflammation for, and in itself. Inflammation of the lung accompanying infectious diseases (eruptive fevers, typhoid, etc.,) are of a different type. Of this more hereafter.

Acute catarrh of the *lesser branches, as well as of the finest termini of the bronchi, is*, like all catarrhs, *superficial, accompanied by œdematous swelling and redness of the mucous membrane.* The immediate result of the foregoing is excessive secretion of mucus, largely diluted with serum, occasionally mixed with blood corpuscles and liquor sanguinis. In time, with the diminution of serum, the secretion becomes muco-purulent and purulent.

This short outline of the pathology of catarrhal pneumonia

will show the propriety of denominating this disease by the name of *broncho-pneumonia*, according to Niemeyer and others. There is still another term for this disorder—*capillary bronchitis*. It is the one mostly used in this country for defining the progress of bronchial catarrh in the bronchial ramifications or capillaries.

Let us now pass to the actual pathological processes of catarrhal pneumonia. That the alveolar walls are a continuation of the bronchial ramifications, has been dwelt upon by Oppolzer, Niemeyer and others, both of whom, strengthened by Buhl, have taken occasion to dwell upon the fact, that this continuation, however, involves a complete change in the character of the alveolar lining. Bronchial mucous membrane is composed of several layers, has what in German are denominated "Fimmerzellen;" alveolar membrane, which, as has been previously stated, is very much like lymphatic endothelium, has pavement epithelium, and consists of a single layer.

In accordance with this anatomical arrangement will be found the pathological conditions. It is easy of comprehension, that an actual catarrhal of the middle and finer bronchi, and the clogging up of these with mucus and pus, must needs involve the alveoli in a decidedly modified degree. I will first give an exact outline of the accepted pathological conditions, and then pass to the causes and their effects, such as are closely allied to catarrhal pneumonia.

In examining an acutely diseased lung, we find different parts of the lung in different conditions. We find, 1st, lobules, which upon section present a smoothly cut surface, not granular as in croupous pneumonia. Corresponding to the lobule, this smooth surface is found to be part of a well solidified, condensed deposit, for the most part situated in the periphery of the lung. On pressure, a fluid, at first bloody, then of pale gray color, escapes, mixed with hyperplastic epithelial cells, part of which are already undergoing fatty degeneration. The chief component part of the infiltration, the gray fluid (for *epithelium* is secondary in quantity) is a *secretion of thick mucus, very rich in pus corpuscles.*

2nd. Parts in which the quantity of blood is greater than in the foregoing, the pleuræ even showing ecchymotic spots. On section, serum mixed with blood and air bubbles escapes freely. This is acute œdema of the lung.

3rd. In other lobules the air-cells appear distended with air,

quite pale, and showing vascularity in their periphery only, as if enclosed by blood-vessels (local emphysema).

4th. On the borders of the lung and toward the root, the alveoli are collapsed, retracted, entirely or nearly emptied of air, and of bluish red color. These are atelectatic parts.

Of the above four conditions found in lobules, only the first, (filling up of the lobules with mucus and pus,) is the immediate and actual result of catarrhal pneumonia. Acute œdema, local emphysema and atelectasis are merely concomitant conditions, the same as they accompany other inflammations. Again all four conditions may alternate with perfectly healthy tissue, thus showing the *lobular* character of the existing inflammation. Should the case become chronic, œdema and emphysema of course disappear, to make room for purulent infiltration and collapse.

It will naturally be concluded from the above, that since the mucus and purulent products are found in the alveoli, they must be products of their structures. This may be partly true with respect to the pus, since the alveolar capillaries may permit of migration of white (pus) corpuscles, as well as other corpuscles. As it is pretty well established that alveolar epithelium does not produce mucus, the greater part, if not all of the secreted product must have originated in the smallest bronchi and had been transferred by respiratory motion and *gravitation* to the alveoli. That the alveoli are at the same time in a state of inflammatory irritation, may be allowed.

Catarrhal pneumonia should, therefore, be defined as: A *capillary bronchitis (so-called bronchiolitis), in which the mucus and purulent secretion of the bronchi is transferred by respiration and gravitation to a number of alveolar lobuli, causing the lung to participate by collateral œdema, local emphysema, atelectasis and hyperæmia.*

It is not my purpose to dwell at large upon prognosis, etc. As stated in the first article, I will chiefly confine myself to pathological conditions.

I will merely state the fact, that a favorable termination is due to the above mentioned fact, *i. e.*, the non-participation (at least in a direct manner), of the true parenchyma in the inflammatory process. The normal condition is regained by fatty degeneration of the products of the inflammation, together with their expectoration through the bronchi, accompanied by the absorption of the pus corpuscles (white blood corpuscles), still re-

maining. Renewed active circulation in the capillaries, reabsorption of serous infiltration into the lung parenchyma and bronchial mucous membrane, restitution of local emphysema, expansion of collapsed parts by the entrance of atmospheric air and regeneration of the lost epithelial cells.

Thus I have merely sketched the favorable termination of this kind of pneumonia, in order to transfer the attention to the changes, which occur when absorption, etc., does not supervene, and which changes pave the way to pulmonary consumption.

The factors which should govern our prognosis have been well condensed by Juergensen, as follows:

1st. The more acutely a catarrhal pneumonia runs its course, the less the danger of an unfavorable termination.

2nd. The younger the patient in number of years preceding the age of puberty, the greater the danger to life.

3rd. The danger to life is in exact proportion to the extent of the pneumonic process.

4th. Any reduction in the general resisting power of the patient increases the danger to his life.

It is not my province to dwell upon other possible terminations, for example gangrene, as that would not be appropriate to our subject, which is to confine ourselves to such conditions as lead to pulmonary consumption or phthisis.

Let me only add that catarrhal pneumonia nearly always involves both lungs.

Where the inflammation passes into the chronic condition, as frequently happens to debilitated persons, even small sections of the parts involved may linger behind others entering upon resolution and thus pass into the chronic stage.

In speaking of the restitution of local emphysema, as well as of collapsed parts, it must be borne in mind, that inasmuch as clogged-up bronchi exist in such parts, residues may readily be left behind. This is true of incapsulated epithelium, as well as of the mucus and purulent secretions, all of which then tend to *caseous degeneration and pigmentary degeneration.*

Authorities differ in regard to the frequency of cheesy degeneration of these products. Niemeyer states that it occurs very frequently. Bartels and Ziemssen have seen each two cases only, where non-restitution resulted in cheesy products and the subsequent developement of tubercle from that center. Buhl places this occurrence among the rare events. As a substantiating

proof he calls attention to the fact that cheesy degeneration is chiefly found in the upper lobes and their apices, while, as above related, the products of catarrhal pneumonia are found in the lower lobes. Then the catarrhal products only clog up the finer bronchi, are not traversed by lung-tissue proper, nor including any of it in the cheesy degeneration, as is nearly always the case in true caseous degeneration. Buhl goes on to say, that "the bronchiolus encasing the cheesy mass is dilated and thickened, forming, as it were, a fibrous capsule for the mass."

Mark now, that this process of incapsulation of the cheesy mass is not one of the effects of catarrhal pneumonia (although the products of the cheesy mass itself is), but a result of the activity displayed by the surrounding parts (connective tissue, vessels), irritated by the existing inflammatory products. This irritation *is not of a very acute character* and tends to the formation and subsequent contraction of connective tissue. This is true chronic peribronchitis, of which more will be said in a future article.

Of American authorities, Flint still classes the cheesy product of catarrhal pneumonia as encysted yellow tubercle. When we keep in mind that these products are degenerated pus and mucus, becoming drier and harder, by long continued confinement in the cysts, this theory ought to be considered conclusively abolished.

Next, let us dwell a short time upon a point in connection with the origin of lobular cheesy masses, which are produced by the wandering of catarrhal secretions from the finer bronchi into the alveoli. The same process, as asserted by some writers, is brought about by the entrance of *foreign bodies* into the alveoli. In the category of foreign bodies, they include extravasated blood, croupous and diphtheritic membranes. It is claimed, that by inspiration they are driven into the smallest bronchi and lung alveoli, and there, by continued irritation, give rise to superficial epithelial disturbances.

To these products may be added the pus of purulent bronchitis and that from cancers, as well as all products of ulceration (such as epithelium from cancer of the lip), particles of cartilage, from necrosis of the larnyx, or particles, in fact, from any destructive process.

Let us dispose of these pathological products, before considering such as are introduced from without. It is well, while allow-

ing for their ability to cause superficial inflammation, to discriminate between each one of these products. It should be borne in mind that extravasated blood is often coughed up within the next few days succeeding a hemorrhage, while the blood that remains is apt to become purulent so rapidly as to suggest the probability of its expectoration, before its presence could have caused any great damage. Products of a *chronic* character (pus from cancers) continually supplied for a long time, are more apt to degenerate.

With regard to croup and diphtheria, which affect the laryngeal and tracheal mucous membrane, I have no data on hand to determine whether they are merely carried downward by inspiration, or whether their presence in the alveoli is due to an extension of the disease.

Foreign bodies introduced from without should be briefly touched upon. The inhalation of dust has of late received considerable attention. Ever since Prof. Tyndall's lecture on "Dust and Disease," and Zenker's essay on "Pneumonokonioses," this subject has created lively interest. The presence, under certain conditions of the atmosphere, of atoms of lime, silicates, carbon, various metals has caused Zenker to base thereupon his theory of "foreign body pneumonia." These atoms have been found to exist in the alveoli. Of course, in the majority of cases, their presence is harmless, but I can readily imagine that in a broken-down constitution or in cases in which the innervation of the alveoli is disturbed, pathological processes may supervene.

Mention is made of still another ending of catarrhal pneumonia which is a rare one. I refer to atrophy of the alveoli and to bronchial dilatation. This condition supervenes mostly in the aged, though it is well to bear in mind the possibility of its occurring in infants, who are the chief victims of catarrhal pneumonia. This is said to occur both in the upper and lower lobes. The bronchi, even in their earlier ramifications, become cylindrical and varicose, with rapidly succeeding dilatations. The mucous membrane remains intact. The alveolar structure has disappeared; emphysema supervenes. The alveolar epithelium is either fattily degenerated, or has entirely disappeared; obliterated capillaries and lymphatics take their place. This latter fact demonstrates that the original process was one of obliteration (by pressure) of the capillaries. Therefore this is true atrophy.

Alveolar atrophy does not lead to phthisis, since it may prop-

erly be called a curative process—an attempt to repair, and when acquired in childhood, is often carried at a green old age.

Article XXVII.

Address before the St. Louis Obstetrical and Gynæcological Society. By the President, S. Gratz Moses, M. D., of St. Louis.

It has been said by great authority that "from the fullness of the heart the mouth speaketh." Certainly this saying will not apply to me, for my heart swells in its grateful throbs to my throat and takes from me the power to express in adequate words my grateful thanks for the honor your kind partiality has seen fit to bestow upon me. To be the first President of this Society, composed of so many accomplished and learned gentlemen, is no slight honor. I do not know how to express my great gratification and high appreciation of it.

It has been my lot to have received at various times much kindness and consideration from the members of our honored profession; but this distinction is the greatest that has ever been conferred upon me. I feel it so and I know it is due more to your kind partiality than any merit of my own.

I thank you, and shall endeavor, to the best of my abilities, to forward the interests of this Association, in its efforts to advance and improve this great, perhaps most important branch of our profession, for the well being of society and the happiness of our fellow mortals.

In seeking for a subject upon which to address you at this, our first regular meeting, it struck me that it might be appropriate to give you a short resumé of my personal reminiscences, during my sojourn in this great city, and, if in doing so, I must sometimes speak of myself, I hope you will forgive the egoism.

It may be asserted, without fear of contradiction, that those who migrated to this great West in search of reputation and fortune, were generally men of energy, of intelligence, and frequently of decided attainments; in all the avocations of life may here be found great minds, and in no one perhaps more than in the profession of medicine.

From the first American physician who permanently settled west of the Mississippi, the late Dr. Bernard Farrar, certainly deserving the great reputation he obtained by his skill in both medicine and surgery, to the present time, St. Louis has reason to be proud of her medical corps.

It is now more than thirty-six years when first I came to this city. About the same time Drs. Pope, J. B. Johnson and McPheeters made this their home. We found here many distinguished men. Those, however, who stood foremost in reputation at that time were Drs. Hardage Lane, Wm. Carr Lane, McCabe, Beaumont, Engelmann and Wislizenus, though still young men, had gained reputation as men of decided scientific professional attainments. At that time there could hardly be said to be any one who paid exclusive attention to any special branch, all were general practitioners; yet some were better known as obstetricians, some as surgeons—our venerable and respected friend, Dr. Geo. Englemann, stood deservedly high as a surgeon and Dr. Wislizenus was, I believe, the first to apply the forceps. Dr. W. C. Lane had, however, decidedly the most extensive obstetrical practice, and was considered by the public as a most successful accoucheur; it is due to him to say that although he did not often use instruments, this perhaps was not necessary, yet he was among the first who used anæsthetics in midwifery practice. His favorite prescription was a combination of equal parts of chloroform and ether. He also told me that in severe postpartum hemorrhages he was in the habit of injecting iced water into the uterus, several years before it was advised by Dr. Tyler Smith, in 1849.

It required, however, the founding of medical colleges to stimulate men to devote themselves to special branches. The advent of the late distinguished surgeon, Dr. J. N. McDowell, a man of great genius, wonderful energy, and fine powers as a lecturer, supplied this want. I believe he came to St. Louis in 1840, at all events he established a medical school about that time, the first, I believe, west of the Mississippi. It was called the Medical Department of Kemper College, the *alma mater* of the present prosperous institution, the Missouri Medical College. Associated with him was the venerable professors, John S. Moore, Josephus W. Hall, and others.

Owing to some difficulties arising, Dr. Hall left the faculty, and connecting himself with the late Dr. Prather, founded the

medical department of the St. Louis University, now the St. Louis Medical College, which has numbered among its professors, the distinguished Drs. Pope, Linton, M. M. Pallen, McPheeters, Litton, etc. It is now, all will admit, a most flourishing and successful institution. The establishment of these colleges gave an impetus to the study of special branches, and from this time it may be said that the first specialists arose in this city.

In the winter of 1842, a few months after my arrival here, I was invited by Dr. W. C. Lane, Professor of Obstetrics in the Kemper College, to assist him in lecturing upon that branch. I believe that I may lay claim of having delivered during that session, the first didactic course on this branch in this city. I had but little time to prepare my course of lectures, and was obliged to study up daily the lecture for the following day. While I felt conscious of having fallen far short, at least in satisfying myself, yet I was fortunate in giving satisfaction to the students. I continued as assistant professor in that institution until 1843, when Dr. Lane having determined to resign his professorship, my connection with the college was also severed. I was succeeded by Dr. Barbour, who fell a victim to cholera in 1849. In 1850, I was elected Professor of Obstetrics in the medical department of the Missouri State University (formerly the Kemper College). My connection with this institution closed with the session of 1854. I do not think that I was ever a good lecturer, but my efforts served at all events to excite others to think and write upon obstetrics, and in referring to early numbers of the St. Louis Medical and Surgical Journal many excellent papers were written on this and its collateral branches by Drs. Fourgeaud, Pallen, McPheeters, Engelmann, and others.

In the Medical Society, there were many discussions upon the forceps and instrumental deliveries. The frequent use of the forceps found an able and expert advocate in Dr. T. I. White, who favored their use in all cases of tedious labors, when there were no great pelvis deformities; in this view he was opposed by Dr. Pallen, who with myself was rather more conservative in our views.

The speculum uteri, opposed by many, however, was occasionally used to diagnosticate the diseases of the Uterine Cervex, and for the purpose of making application to that part, as early as 1843. A very interesting paper upon its use in treating

granular inflammation of the cervix, by the late distinguished Dr. M. M. Pallen, may be found in the January No. 1844, vol. 1, No. 10, of the ST. LOUIS MEDICAL AND SURGICAL JOURNAL, edited by Drs. Fourgeaud and McPheeters. I believe that I was the first obstetrician who used in this city, the uterine sound. I remember very well that it was necessary to send East to obtain it, as one could not be found here. It was with fear and trembling that I introduced Simpson Sound to the uterine fundus. Dr. Pope was present; the object was to assist in determining whether a pelvic tumor was free or connected with the uterus; it assisted us to decide that question. I believe that this was in 1844. In the same year Dr. M. M. Pallen was appointed to the chair of Obstetrics in the Medical Department of the St. Louis University, and did much by his lucid lectures to advance this department. In this short and imperfect sketch, you will see that the pioneers in this city, even at that early period, practiced gynæcology to some extent; that they worked most assidnously, and endeavored to avail themselves of all the means known at that time. The great advancement made in late years, especially in gynæcology, are to a great extent owing to American ingenuity, industry and science. Had it not been for the great Dr. Marion Sims, perhaps this branch would still be in its infancy, and the many diseases which can now be successfully treated, would still be the *opprobia medecinæ*, as they were during my early professional life.

We have still much to learn, yet I trust and believe that the time will come when the diseases of the female generative organs will be better understood and more successfully treated.

You gentlemen have a glorious field before you. You have improved means of diagnosis, vastly superior instruments, and an immense and growing population, enabling you to apply yourself more exclusively to specialties.

The pioneers are fast passing away. Very few of those whom I knew, respected and loved in my early professional life in this city, are left. They can be easily counted: Only J. S. Moore, Geo. Engelmann, A. Wislizenus, J. B. Johnson, McPheeters and myself. The rest, a gallant and glorious band, sleep with their Fathers. "Their arms are rust, their bones are dust, their souls are with the Saints, I trust." They have left examples worthy of imitation, and I can with truth express the conviction that you, gentlemen of the rising generation, will more than fill the stations they adorned.

ARTICLE XXVIII.

MEDICAL EXPERTS AS WITNESSES IN COURTS OF JUSTICE.—III.

By F. T. LEDERGERBER, ESQ., of St. Louis.

Scientists or experts can only give an opinion as to the probable effect of certain acts or circumstances, hypothetically stated. But they are not permitted to give an opinion on the point of inquiry, which the jury must decide. This would be in effect, to decide the case for them, as it is termed in law, taking the case from the jury, an infringement upon its special province, and of the right of parties to have it tried by the jury. The sole object of this testimony is to throw light upon the subject matter of the inquiry at issue in the case on trial. It would defeat the object sought to be accomplished, if the witness brought into Court for the purpose of aiding the jury in coming to the right conclusion, were permitted by his opinion, to say that which ought and can only be determined by the jury. Therefore scientists or experts cannot, by their opinion, determine or give their opinion upon the point the jury is to decide.[1]

It is therefore improper to ask a witness what in his opinion would be the effect, but the question should conclude, what might be the effect, or what would be the probable effect or result. To illustrate, in a trial for the larceny of a certain article of value, the attending physician cannot testify that in his opinion the taking was an act of insanity. He can only state that from all the facts it is his opinion that "the defendant was probably laboring or may have been laboring under a fit of insanity at or about the time of the taking." It is true, if the jury believe him, the inference is the same, but it alone can find the fact, and then act upon it. The jury may still find that the person was sane at the taking.

Scientists and experts are the only witnesses who are permitted or compelled to testify in a case, the facts of which are unknown to them, and which they have not heard detailed by the other witnesses. Hypothetical cases are put to them for their

1. See cases last cited.

opinion as to the probable result or probable effect.[2] Where such a witness gives an opinion upon facts witnessed by himself, he must state the facts upon which he bases it. The reason for the above is evident, for if he could give his opinion without divulging the facts upon which it was founded, it would prevent others from understanding him, and what is of more importance, make him the judge and not merely a witness in the case. It would withhold evidence from the jury, upon which they must pass.[3] The facts upon which an opinion is asked must be undisputed, and not put in the alternative,[4] for opinions upon different states of facts would not assist either the Court or jury in arriving at a correct understanding, but the contrary. This does not exclude counsel on either side from asking an opinion upon a state of facts they suppose to exist or have tried to prove in the case. The supposed case must be clear and relevant to the evidence in the case, leaving it to the jury to find the facts and then apply the opinion. No opinion can be given on a part of the facts in the case.[5] The soundness of this rule no one will doubt, the object being to enlighten and not to confuse the triers of facts.

An experienced physician, after having made a post mortem examination of the body of a female, may as an expert, offer his opinion as to whether she had been pregnant and what was the probable cause of her death.[6] Whether certain symptoms, particularly specified, were those of arsenical poisoning, the symptoms being the same related by another witness at the trial;[7] as to the nature of the affection complained of, its causes and curability;[8] as to the condition of a patient they have seen;[9] as to the kind and nature of the instrument causing the wound; in a murder case whether the wounds or injuries were likely to be the cause of death; whether certain circumstances

2. U. S. vs. McGlue, 1st Curtis, 1; Perkins vs. Concord, 44 N. H., 223, 1 Parker, N. Y., 495, 48 Mo., 291; State vs. Smith, 32 Me., 369; Lake vs. People, 12 N. Y., 358; Stephens vs. People, 4 Parker (N. Y.,) p 396.

3. 26 Wend, People vs. Lake, 32 N. Y., 358, 8 Mass., 371, Gib. 225; White vs. Bailey, 10 Mich., 155.

4. U. S. vs. McGlue, *supra*.

5. People vs. Lake, 12 N. Y., 358; Herald vs. Thing, 45 Maine, 392.

6. State vs. Smith, *supra*.

7. Stephens vs. People, *supra*.

8. Matteson vs. N. Y. C., 35 N. Y. 487.

9. State vs. Smith, 32 Me., 369. Lake vs. People, 12 N. Y., 358.

would likely produce a paroxysm of the disorder. A physician cannot give his opinion as to whether a rape could be committed in a certain way or position, or under peculiar circumstances, nor as to the probable position of the body of the deceased when struck;[11] nor as to whether a fracture of a skull produced in Court is from a weapon also produced.[12]

The three last cases in connection with the cases where such testimony was admitted, and what has been said will tend to illustrate the rule, by which some cases are classified as proper for an opinion, and others not. That which is evident or comprehensible to persons of ordinary understanding cannot be the subject of an opinion for a scientist or expert.

There is only one more point in connection with the testimony of this class of witnesses necessary to be mentioned. This question seems to be misunderstood by many. It is as to the weight and conclusiveness of the opinions of scientists and experts. In France and Germany this has met the eye of the law makers, and received a solution, certainly more satisfactory to Court and counsel, than under the English laws relating to evidence and witnesses. There, this class of witnesses are called on by the Court to investigate the subject matter of inquiry in the case upon which their testimony is required. They are clothed with the authority of the Court during their investigation and report to the Court, and unless bias, fraud, or partiality be shown, the Court adopts their opinion as the rule of law in that case. The Courts awards them suitable compensation. They cannot well become partisans for one side, for neither side calls them. True it is, that not so many can attain the prominence of testifying in a case, and that only men standing high in their profession or art are appointed.

Under our system it frequently happens that quite a number of scientists or experts are subpœned on each side, and strange as it may seem, in most instances a majority give their opinion favorable to the party calling them, and it seldom, if ever occurs, that one of them will say that he is not thoroughly prepared or competent to give an opinion on the question propounded. The tendency of this is, to detract from the value of such opinions in the eyes of the juries and the bar. "Who shall decide, when doctors disagree?"

---

11. Kennedy vs. People, 39 N. Y., 245.
12. Wilson vs. People, 4 Parker N. Y., 619.

Opinions of scientists are to be received and weighed by the jury, and their creditability considered in the same manner as other evidence,[13] and it is error for the Court to instruct the jury to give any more weight or evidence to their opinions. Taken in connection with the case of The People vs. Harking, *supra*, in which an expert was allowed to shake the foundation of a physician's opinion, by giving his opinion that his science was uncertain, the position scientists and experts occupy in our Courts are less satisfactory in regard to the value and effect of their testimony as such, than in regard to their pay. Should any movement be made at all, it might comprise both, so that fair pay be at least united with a position in Court worthy of the same.

---

13. Humphries vs. Johnson, 20 Ind., 190.

NOTE.—The decision that a person in a suit where the personal injury sustained is an element in the case, must submit to a personal examination in regard to the same, tends to show that, in such cases we need commissioners of physicians, instead of their being mere witnessess. There are now commissioners of physicians appointed in many States, to inquire into the sanity of certain persons.

Dr. Thos. J. Dills and Dr. Alphus B. Buchman, of Fort Wayne, Ind., were fined for refusing to give their professional opinion in a criminal case in Allen County, Ind., without having been first paid or promised due compensation. They appealed, and the Supreme Court sustained their objection and reversed the opinion of the lower Courts. The opinion has not yet become accessible. The constitution of Indiana contains a provision similar to the statute of Elizabeth in England. Sec. 1, Art. 1, of the constitution, among other provisions has the following: "No man's particular services shall be demanded without just compensation." This seems explicit enough. The opinion is by a divided Court—two against three Judges. This indicates the effect of insisting on proper legislation on this subject.

Proceedings of Medical Societies.

St. Louis Medical Society. Jas. M. Scott, M. D., President.
R. M. Funkhouser, M. D., Stenographic Reporter.

[Revised by the Committee on Debates for The Journal]

Medical Society Hall, Polytechnic Bld'g,
St. Louis, December, 1878.

Discussion Upon Dr. Ford's Paper on Croupous Pneumonia.

Dr. Wm. Johnston:—This substance called malaria, by observation we know its activity is found on high rich soil, with heavy vegetation. This idea of the presence of temperature is not new, and yet it is not known what malaria is. Jones, of New Orleans, tried to demonstrate that it was due to forms of bacteria life. From observations made by him, quinine is destructive to lower organisms. There is one observation in the paper* in regard to the location of residence, as persons on highlands are stated as being more exempt than those in low lands. Those who have read Drake, and believe in him, tend to a different conclusion. Those who have read Caldwell will remember that he demonstrates that if one takes a residence on the hills of Louisiana or those of St. Paul, they are more liable to the diseases than those who live near the water. Many who reside in the State of Missouri will bear me out in this statement. In conversation with many of the inhabitants living along the Meramec, or anywhere near a stream of water, they will insist that they are not as subject to the fever as those living on the hills. This is the result of long observation. As to treatment: in reference to opium I agree if he refers to the commencement of the disease; he objects to blood-letting.

Dr. Ford:—I made no observation as to the treatment of croupous pneumonia. My remarks were limited to the treatment of bronco pneumonia in children and old people.

Dr. Wm. Johnston:—Then I agree with him. With those exceptions, I think it is an admirable paper.

Dr. Ford:—I would like to say, Mr. President, with regard to the prevalence of malarial diseases on different topographical areas, that it is a matter of observation, that such diseases prevail especially on the flat lands bordering water courses. I speak of the malarial regions of the South and Southwest, including Mis-

* Dr. Ford's paper, "How Does Malaria Beget Croupous Pneumonia," published in the January No. of The Journan, page 34.

sissippi, and Alabama; the same observation will apply to Southern Illinois, Missouri, Kansas and the states bordering on the Ohio, and also to some extent to Northern Illinois, likewise of the greater unhealthiness of the river and creek bottoms. The fact is so well known at the South that planters used to regulate their lives by it. They had often several plantations, one of which they took care to keep up, though less productive than the others, in the hilly districts. Between the Mississippi and Yazoo rivers the country is a dead level; the planters leave these lands for the hills, thirty or forty miles away, in summer, or rather used to do so before the war, where they could afford it. It is a prevalent custom at this time, for white laborers to leave the unhealthy bottoms in July, after having pitched their crop of cotton, not to return to them again until September, at the earliest. It is from personal observation also that I affirm the level ground and swampy districts to be more unhealthy than the hills. This I believe to be so, not solely because the flats are generally marshy and more or less miasmatic of themselves, but because they are often situated at the base of eminences which bound them. We must recollect that from these eminences that there is not only a pluvial drainage but an aerial one also; at night cooled air passes down to the levels, and carries with it the miasmatic effluvia of the hill sides. Every night the cold, humid air, charged with whatever miasm may be generated from the soil, rolls down upon the flats and remains there until the next morning, when the fog rises. Nothing is more firmly believed by the resident population, than what I have affirmed, indeed they would laugh any other opinion to scorn, and I am sure they know more about it than doctors who write on the subject in a scientific way, and never saw a case of congestive remittent in their lives, or had the least opportunity for studying the etiology of these semi-tropical maladies.

DR. MOORE:—I think the doctrine presented in Dr. Ford's paper correct. I think the prevention of malarial diseases, and the virulence of the disease is in proportion to the proximity to the source of the miasm or to water. Those living in the neighborhood of back-water will be liable to the disease and an intense form of the disease. What is the nature of malaria? In fact it has a peculiar affinity to humidity, or the humidity has a peculiar affinity to malaria. It is true that in a hilly country the hills are subject to malarial disease, carried there by dissemination, and it depends on the altitude of the hill. If it is high enough and the fog does not get there, then there is no disease. If the fog settles on it, it then becomes unhealthy. It is undoubtedly a fact that the severity and liability to the disease is in proportion to the proximity to the source of the origin of the disease.

DR. WM. JOHNSTON:—I will remark that the question of ma-

laria has caused much discussion since the days of Hippocrates. In the Pontine marshes, it was known as marsh fever, occurring twenty-four or forty-eight hours after exposure. Those who have studied Stokes and Bell will recognize the new departure. They state that it occurs in low altitudes; that there is no pyrogenic substance, but that it is due to humidity; to a rarefaction and condensation of the atmosphere. They contend that when the temperature has gone down, the pores are closed and that this is the cause of malarial fever. There was a work written about 1860, trying to prove that there is developed a certain living organism, a postive body. I have read Saulsburry, of Cleveland, who has tried to prove it. I see that he is quoted in Europe; in the last war, among the soldiers it was supposed to have originated from straw. It may be something in the alluvial soil, that is developed in the fall. Our farmers along the Meramec say that they are not as subject to this disease as those living on the hills. In my opinion, I agree with Dr. Moore who says that the liability to malarial fever is greater at the fog line than in places of lower temperature.

Dr. Ford:—I must say, it has been a source of regret to me that during the last ten or twelve years the germ theory of disease has obtained so strong a foot-hold in medical opinion. This theory has not been proved by any means; it is still a decidedly cloudy affair; a hypothesis which has never been established; a vague assumption imagined by a class of thinkers who feel themselves unable to grope with the subject without having recourse to empirical hypothesis. Indeed, I am strongly inclined to believe that there is no such thing as the special agent we call malaria, and that the disease generally spoken of is due to so-called malaria are to a very much greater extent than has been supposed, the products of long continued and exaggerated heat and humidity combined. In this climate, we are not able to understand the intensity and exhausting effects of the heat and humidity of semi-tropical countries. There, all day long, for six or seven months of the year, from April to the last of October, or the first of November, the heat is excessive. The humidity is likewise exceedingly high; with regard to the temperature, higher during the early Autumn than in the middle of Summer. Now, *humidity* is *tantamount* to *heat*; every degree of humidity is equivalent in its effects upon the animal body to several degress of heat, at least.

It is the humidity of the air that prevents the cooling of the body when over-heated. The constant excitement of the circulation, and the exaggeration of the nutrient processes generally, in consequence of the abnormally high temperature which the organism has to assume, eventually explodes in a febrile movement. But humidity and heat combined, the vastly greater portion of the so-called effects of "malaria." Malaria is no single or peculiar emanation from the soil, capable by itself, of gener-

ating the disease in question. I do not by any means, however, wish to deny altogether the influence of animal and vegetable decomposition upon the origin of what we recognize as malarial affections. During the decomposition of both animal and vegetable matter gases are formed which are competent to deoxidize the blood. During the circulation of malarial diseases, also, I have no doubt that many other agencies of intra systemic origin, resulting from the overheating of the body, conspire to induce a spanæmic condition of the blood. If we draw blood in such diseases we kill our patients. This remark is especially applicable to the most malignant form of fever known at the South, viz: yellow fever, and is applicable, though less cogently, to all idiopathic fevers, for fever is indisputably an expression of hypo-oxygenation of the blood. Anything which induces poverty of the blood necessarily disposes to an attack of fever, so that I am satisfied that the influences of heat and humidity far more highly express than we usually understand in this latitude, are much more directly concerned in the generation of malarial fevers than has been generally taught.

THE PRESIDENT:—To what do you attribute this prevalence of malarial diseases in marshy places, doctor?

DR. FORD:—To the accumulated heat of the soil; the rays of the sun pass easily, by virtue of their high tension, through a humid atmosphere, and are absorbed by the soil, but the rays of low tension given off by the soil in return cannot traverse the overhanging humid air. This is a commonplace fact in meteorological thermics. Most transparent media act in the same way; thus in a hot house the rays received through the glass cannot pass out again, but are retained by the earth and herbage within, and so a high temperature is attained. A humid air, like the glass of a hot house, or the water overlying decaying leaves in a swampy pool, acts as a sun-trap, and in all cases the earth becomes hotter than it would otherwise do. If the air is humid, the soil heat at night remains high, and houses and the human body must continue at an abnormal temperature, the system is then very soon overborne.

DR. WM. PORTER:—How explain where a person has passed a night in a malarial region and had the fever after?

DR. FORD:—I have never seen or heard of a well authenticated case of an individual being attacked by malarial fever after a single night's exposure, unless such a person had been previously greatly influenced by long continued heat and humidity.

THE PRESIDENT:—For instance the Pontine marshes.

DR. FORD:—If the individual had not been on the brink of fever—had not been subjected to the causes and meteorological

influences stated, I cannot believe that he would take fever from a single night's exposure.

The President:—Dr. Wood, I believe, says in South Carolina, owing to the prevalence of malaria, the negro can work on the plantations, but the white man cannot.

Dr. Ford:—It is true the negro does so, but not with impunity, for he is peculiarly liable to croupous pnemonia, of the most violent type. I have known of sixty or seventy deaths by the *foudrogant* pneumonia and pleura-pneumonia within a few days, on a single plantation, many of the cases terminating fatally in a few hours. The acclimation of the rice field or sugar plantation negro, is almost perfect, and I think his liability to pneumonia is accounted for mostly by the views expressed in the paper I have read. When the Southern planter passes a night on his plantation and takes a fever, it must be remembered that he has been residing previously within fifty or or sixty miles, or much less, of his plantation, under very closely similar conditions of heat and humidity, and I must believe that his fever is only precipitated by his visit to the plantation, especially as on such visits he is very apt to overheat himself, or to drink too freely, or to get wet.

Dr. Newman:—There are some observations, made by surgeons in the British navy, that are conclusive and militate against those of Dr. Ford, viz: That ships have anchored a considerable distance from the shore where there was malaria. Of those of the crew who went ashore, every one of them were attacked with the malarial disease. Not only is this the observation of one or two surgeons, but of many other surgeons on many occasions. That the influence is local, and is not a nonentity but an entity, and effects every person under certain circumstances without exception, has been proved.

Dr. Ford:—We should recollect that the sailors in question have been cruising in seas adjoining the malarial shores. The humidity of ships is always high, but it may be higher on the land, for instance of the African coast borders, where there is most luxuriant vegetation, nor is the heat on ship-board near so great as on land. The temperature of the soil and the night temperature of the individual is higher on shore than on board anchored near by. On shore the condition of sailors, as regards exertion, and exposure to unwonted fatigue and excesses of various kinds, is very different indeed from that which is obtained under the regular and severe discipline of the ship. In accounts like these we are told only the bare facts; but we must look more closely. We must inquire what these sailors were doing when they went ashore; they did not go ashore to sit down and do nothing, but either for pleasure, which would imply a vast deal of roaming about in the midst of the luxuriant

herbage, with drinking, perhaps, and often other nocturnal excesses; or else for fatigue duty or for warlike purposes. Under either category the men would be much sooner fatigued and exhausted than on ship-board. And most probably most of the crew were already on the brink of fever, which was specially excited only in those who went ashore, not because they were immediately poisoned by so-called malaria, but because they, alone of all the crew, were subjected to an unusual degree of heat and humidity concurrently with unusual fatigue and perhaps excess.

DR. J. MOORE:—I would like to make some remarks on malaria. I can't subscribe to the theory of humidity and heat, or to the high or low temperature alternating, a kind of see-saw as to produce the same results a French authority describes as happening to himself. He was in the habit of bathing in the Seine every morning. For some reason he left the city to dwell elsewhere. He failed to bathe. His system underwent reaction. At the proper time in the morning that he was accustomed to take a bath, he had a chill, but also a fever, and he thought he had made discovery of intermittent fever. Malaria is an entity—a specific morbific agent, and there is ample reason to believe so if there is any reliance to be placed on authority that people are liable to it to leeward of the marshes—the windward of the marshes. An example of it is here in the city, as Chouteau lake. It is filled now, but existed for a number of years. The draining of pond was by part of Clark Avenue and Market Street. This part of the city was more subject to fever than the windward of the pond. It shows that malaria can be wafted by the wind. It is also a fact, the result of observation, that during the prevalence of malarial fever, bilious and remittent fevers, after rain storms, it is comparatively healthy, on account of the affinity between malaria and moisture uniting, runs off. Another reason for supposing it to be a specific morbific agent is the fact that in marshy districts covered with jungles, the malaria engendered in so great as to produce malarial diseases is concentrated. The reason that it is a specific agent which is the strongest is that it is amenable to a specific remedy, cinchona, and that it depends on a specific course.

DR. WM. JOHNSTON:—Burdon-Sanderson says that the increase of bacteria is so great that sixteen millions will be produced in one night. It is demonstrated that quinine does cause their death.

Abscess of the Liver Perforating the Stomach.

DR. BARRET:—The specimen I have to present is abscess of the liver perforating the stomach. Some weeks ago the patient entered the hospital with paroxysms and chills occurring regularly. It was supposed to be a case of intermittent fever. She improved and went out. She returned again still with intermittent

chill. She was in the hospital a week when the rigors ceased. On her second return the symptoms referable to the liver showed themselves. There was aversion to food, pain after eating, emaciation, and cachexia; there was not jaundice till a day before she died. There was vomiting blood from time to time. On examination the stomach was hard, over the cardiac end, it was dilated and tender. We looked for cancer of the stomach at one time, on the right side, before she died. There was pleura pneumonia. On examination, the abscess was situated near the cardiac orifice of the stomach. I should state that on the night before she died, she vomited pus; was unmformed of this fact until she had died. She had pericarditis.

Dr. Hughes:—There was a case of abscess of the liver under my observation, two months ago, which had a happier termination than this case, the opening being through the lungs. It is interesting to have seen a case with cardiac complications. It is interesting to inquire as to the relative frequency of abscess opening into the base of the lung and recovery. May not the opening into the lung be favorable as to the treatment?

Dr. Steele:—Some weeks ago I had a case of abscess of the liver, at one time discharging four ounces; five days after, eight ounces. A few days after the abscess opened into the bowels and was discharged by stool. There was immediate relief and the opening in the bowels closed. Some days ago, there being trouble, thought the pleura was affected. Asperated, but there was nothing. Perhaps there was tubercle, but the patient recovered.

Dr. Ford:—I had a case of abscess of liver which opened through the lung, of a young married woman, who had one child, attributed to malarial trouble. It opened through the diaphragm and lung in two weeks. At the height, the discharge amounted to three or four quarts in a day—the wash basin was filled, which was kept by her side. She expectorated frothy, viscid material and muco pus. She recovered; did well. It was not large, six or eight ounces probably.

Dr. Steele:—I would like to ask if in those suffering it is from intermittent or pus?

Dr. Barret:—From the pus.

Dr. Steele:—I had a case in my care in which the rigor was so great as to shake the bed.

Dr. Ford:—The fever is due to the retained pus.

Dr. Hurt:—Is it not a rule that in the culmination of inflammation where there is considerable pus that rigors supervene where the product of the inflammation is transferred into pus? I have the support of medical science. I think in the

case reported by Dr. Steele there were two abscesses instead of one. While relief was being rendered by surgical assistance to one, the other was progressing on its its way through the tissues into the intestines. It is not uncommon to have multiple abscesses in the liver. There was a case in the hospital when I was connected with it. There was for several weeks a prominence over the right hypochondriac and epigastric regions. We performed paracentesis abdominis. A quart of pus was discharged. A few days after the man died. On post mortem we found another abscess quite as large in the right lobe of the liver, rather posterior, as the one we had emptied.

DR. LUTZ:—I have had a little experience of aspirating and would like to ask about the operation. I had two cases this year that came specially under my notice. One was connected with the lung; the other, a man 35 years of age, came into the hospital with diarrhœa. I passed the needle into the liver. The first time I tapped two quarts of pus were taken and he felt relieved. A week later there was another tapping, and three pints were discharged. Subsequently two or three more. At the point where the needle pierced the tissues pus came out for four or five days. On post mortem we found a cavity in the left lobe of the liver, which was twice the normal size. The cavity was four inches in diameter; connected with the anterior of the abnormal walls; no connection with the abdominal viscera. I would ask if the prognosis is more favorable if it is connected with stomach or lungs. Some open and inject the cavity with an antiseptic lotion, as chloral, carbolic acid, etc.

DR. PREWITT:—In abscess of the liver there is danger of pus getting into the cavity. No matter when operated upon many result in death of the patient. On principle it is best to open and empty it, and allow it to fill absolutely. The East India surgeons aspirate even in those cases where pus has not formed. They say that aspirating does no harm, but has a tendency to abort it and prevent the formation of an abscess. Whether it is true or not I do not know. I would not do so unless it contained pus. I have aspirated a few times. A gentleman, clerk of the Probate Court, had an abscess of liver; I aspirated and drew away five ounces; a second time took away a few ounces more. He recovered and is doing well. Five weeks ago a man died—I think from rupture of abscess sack into the peritoneum. I got a small amount of pus by aspiration. I failed to reach the main one with probe. There was, no doubt, more than a single abscess. It is better to secure an external opening and resort to washing. I think in the next case I shall adopt the plan of constant irrigation through the opening of the cavity by carbolic acid so as to prevent pyæmia.

DR. WESSELER:—An Irishman at the Hospital had a swelling over the region of the liver. I was satisfied with the promi-

nence and concluded it was an abscess forming. I placed a piece of caustic potash under the adhesive plaster and facilitated the opening. It took from ten to twelve days when it was ready to open. The man recovered and is doing well. I believe when we aspirate we wait too long. The system succumbs not to the operation, but the patient is beyond relief.

DR. ADOLPH GREEN:—For inquiry's sake ought physicians resort to the use of the aspirator before adhesions have taken place? We are aspirating in the abdominal cavities. It is a difficult thing. The lungs keep more to the outside, and is there is the difficulty before adhesions have taken place. If no adhesions have taken place, we get into the peritoneal cavity. We ought not to use it before adhesion of the liver has taken place, because we cannot comprise it to the pleural cavity. If adhesions have taken place we can aspirate just as well as in the other, but we ought to have adhesions.

Clinical Reports from Private Practice.

A Case of Perityphlitic Abscess. By E. M. Bartlett, M. D., and C. Pearson, M. D., of Louisiana, M. D.

LOUISIANA, MO., JAN. 20, 1878.

EDITOR ST. LOUIS MEDICAL JOURNAL:

DEAR SIR: We herewith submit for publication in your valuable journal, a very interesting case of traumatic perityphlitic abscess, and trust that you may find it sufficiently interesting to give to the profession through your columns.

We give the case *verbatim* as reported to us, from the patient's own pen after his recovery, believing it will be far more interesting to your many readers thus given, than would be a long written article.

You will observethat we designate the disease, traumatic perityphlitic abscess. We think the circumstances all considered his illness; the discharge of the glaziers's point, and his subsequent recovery all go to justify beyond a question, the assumption that the foreign body named, was the prime and sole factor of the patient's trouble.

Now a word relative to our treatment of the case: We would say the only credit we claim, is that of letting the patient alone; by this we mean to say, we interfered just as little as possible,

believing that, during our entire charge of the case, every conservative effort at Nature's command was being brought to bear for his good. Our opinion, therefore, was simple, such as looking closely to the well-nourishing of the patient, and adopting all hygienic and palliative means for his comfort.

Respectfully, etc.,

E. M. BARTLETT, M. D.,
C. PEARSON, M. D.

I, (J. Burger,) was born in Germany, October 14, 1837. Came to America in 1854. In 1872 I came to Jacksonville, Ills., as road-master on the C. & A. R. R. On or about November 15, 1873, while out on the road, I felt a pain in my stomach, toward evening which continued until I arrived at home, 9 o'clock, P. M. of same evening. On the following morning, after walking to the depot (one mile,) this pain increased so much that I became almost helpless, and had to be taken to my home in a carriage and carried to bed. The physician who arrived soon after pronounced my case one of bilious colic, but after treating me for this until the following day without any relief, gave his opinion that it was rheumatism of the stomach and bowels.

I was confined to my bed over a month, suffering from severe pains in my right groin, which extended to the hip of the same side—could only lay on my back with right leg drawn up. After a month I began to recover slowly, but there remained a small spot in the right groin, which had no sensation except on hard pressure when it felt sore inside. In February, 1875, while living at Springfield, Ills., I had another slight attack of this. Again on September 1, I was taken with what appeared to be a bilious fever; but after two weeks the same symptoms as at Jacksoville came on, and I suffered terrible paroxysms of pain which occurred once or twice every twenty-four hours, and continuing three or four hours, in the groin, hip and back; the leg was again drawn up so that on standing I could not place the foot down on the floor. Of five physicians of Springfield, who saw me, two said it was rheumatism; two, kidney trouble and one liver complaint.

In April 1876, I was transferred to Louisiana, Mo. where I was first treated for neuralgia. With an increase in the severity of the paroxysms, and swelling appearing in the groin and over the lower ribs, about four inches from the spine, with a feeling as if matter was collecting there. Painting with tincture of iodine, and fly blisters; and all remedies failed to give relief. On September 1, I went to Eaton Rapids, Mich., and used the waters of the springs there, under the direction of the resident physician, Dr. Hale, but this seemed to aggravate my case, and in two weeks I was unable to leave my bed. Was treated by two physicians until November 1, when I returned to Louisiana, Mo., making the jouney on a bed. On November 7, Dr. Bartlett saw and examined for the first time, and gave his opinion that

an abscess was forming, in which opinion Dr. Pearson, of this city and Dr. Hnmphrey, of Mexico, Mo. concurred; other doctors saw and pronounced it neuralgia. The only relief from pain I could get was by the constant use of morphia, which I commenced to take regularly about this time. In March 1877, a small red swelling began to appear in the groin, which increased in size, until during the first week in April, when Dr. Hnmphrey made an incision and a discharge of matter came from it, drawn from the upper part of the hip, and from the swelling near the spine. The pain which I previously suffered began to decrease and I discontinued the use of the morphia, but became so weak from the discharge of the abscess that I could not now dispense with it and had again to resot to its use.

About two weeks after the incision was made, I was awakened during the night by a sharp shooting pain in my right side, and a large amount of gas escaped through the opening and afterwards some of the contents of the bowels came through it every day. From May 20, to May 24, my bowels torpid, discharged entirely by this opening, but by frequent injections finally resumed their natural course.

On July 4, Dr. Bartlett made another incision about three and a half inches from the spine, from which a large amount of matter began to discharge, and on or about August 15, when Dr. Bartlett removed the plaster, he found a *small thin plate of zinc,* triangular in shape, measuring one-eighth of an inch in each side, (a glazier's point) which had found its way through the incision during the night, and was kept there by the plaster. After this the abscess began to heal, but opened and discharged more at intervals of two or three weeks, repeatedly; but after September 15, no more of the contents of thebowels appeared at this opening and I felt a sensation of healing, and also a desire to lay on my right side, which I had not been able to do or even feel like in four years.

On September 9, I stopped taking Mrs. Drollinger's antidote for opium, which I had been using since July 15, which proved to me to be a substitute instead of ontidote for morphia, and much more injurious to my bowels, constipating them more and more every day, besides suffering all the pangs and horrors of the opium habit which beggars any description that I can give; I was utterly prostrated for three weeks, and for six weeks I felt its bad effects; my bowels seemed paralyzed, and my digestive organs in the worst possible condition; although my appetite remained very good I did not dare to eat much as every mouthful of food seemed to distress me; this trouble has gradually improved, but is not all recovered yet. On or about Nov. 10, 1877, I weighed 114 lbs.; now, Jan. 20, 1878, I weigh 135 lbs., which is nearly my standing weight in health. I can now lay on my right side, but afer a time I feel a fullness there and have to turn over. When laying on my left side I feel as if something was tearing loose in my right side, and I cannot therefore

endure to lay way but for a short time; but those troubles are getting somewhat better of late. During all my sickness, even at a time when by the discharge of the abscess I had become reduced to a perfect skeleton, and hardly able to move on my bed from weakness, my pulse remained full, strong and regular, 70 beats per minute, without the least variation. After I stopped the antidote my pulse became very weak and very irregular, 80 to 100 beats per minute, and I had daily spells of fever, from 3 o'clock P. M. to midnight. I now feel better than at any time in four years, except some soreness and occasional slight swelling in my limbs and over my bowels, and weakness in my back. I have no more pain. The abscess is about all healed and has not caused me any trouble in the past three weeks. My complexion is better than it has been for years and am also less nervous than I have ever been.

Double Peri-Nephritic Abscess. By J. A. Stucky, M. D., of Lexington, Kentucky.

C. S——, female, aged 9 months; colored; strumous diathesis. I saw her April 16th, 1876. She was in a semi-conscious condition; when lying on a pillow, in a horizontal position, was perfectly quiet, but would shriek with pain when moved. Pulse quick and feeble; tongue coated; temperature in axilla 102½.

On removing all clothing (which was done with difficulty on account of the great pain it caused), nothing abnormal was discovered about the spinal column; both thighs were flexed and psoas muscles somewhat contracted. Great pain was produced when I extended either limb. I discovered tumefaction over the trochanters and slight enlargement of gluteal region on both sides, but the more marked on the right, than the left. My impression was that I was dealing with a case of double hip-joint disease in the second stage. I soon after learned my error.

Bowels being constipated, a mild purgative was ordered, and to be repeated every 2 hours, until the bowels moved freely. In addition to this, warm fomentations were applied to both sides.

April 17th. No improvement; bowels have moved freely; patient moaned almost constantly, and picked at bed clothes; cannot be moved without causing pain; thighs are flexed as they were yesterday; tumefaction over trochanters larger and softer; no fluctuation; temperature 103°; pulse feeble.

I ordered the patient to be bathed in tepid water, and that bromide potash, in 5 gr. doses should be given every 2 hours, to relieve symptoms of meningial trouble; twenty grains had the desired effect. Hot fomentations were continually applied to the hips.

April 18th. The right thigh more flexed than the left; psoas muscles greatly contracted; a large fluctuating tumor was felt over the tochanter of right side, extending up into the gluteal

region. A free incision with a lancet gave exit to a pint of greenish-yellow, odorless pus. From this time on, the right side improved. Warm applications were kept up until pus ceased to exude from the wound made by lance. The left side increased in severity, similar to that of the right, until April 22nd, at which time a fluctuating tumor (not so large as the one on the right side), situated over the left trochanter, was discovered. A free incision into this gave exit to about half-pint of thick, yellow pus, with slightly fœtid odor.

Convalescense was slow, the right side improved more rapidly than the left. Pus continued to exude for several weeks from both wounds, after which the wounds closed nicely. Stimulating tonics were given for several months.

Aug. 13th, 1876. I visited the patient and found her in perfect health. Was able to stand alone and push a chair across the room.

The foregoing is from notes taken while visiting the patient, history of the case, so far as I was able to learn, is as follows:

In latter part of the preceding month (March 1876), the child fell from the arms of its mother (a very short distance), across the edge of a wash tub, striking just over the sacrum, but no perceptible injury was sustained. Shortly after this, she was attacked with bronchitis with pneumonia in right lung, from which she recovered without trouble. She was in good health about two weeks, after which time she lost her appetite, was very restless and fretful, and was only easy when in the horizontal position.

Having never seen a case of peri-nephritic abscess, and read very little on the subject, this case was one of great interest to me. Whether the abscess was the result of the fall received, the bronchitis, or struma, I am unable to say. Peri-nephritic abscess in children, says Dr. Gibney, is by no means of common occurence. So far as I have been able to learn, there are only twelve cases on record; nine of which are reported by Dr. Gibney, of New York; two by Bowditch, and one by Halle. The last named writer reports that in twenty cases collected in 1833, he found one in a patient of sixteen years old. With reference to the disease in adult life, authors are not unanimous; most of them, however, declaring it a rare affection. Dr. Gibney says, in referring to twelve works on diseases of children, "I find no space given to its consideration in fact, scarcely a reference."

The twelve cases I have read of were single abscess and the youngest person affected was one and a half years old.

For a minute description of this disease, its etiology, symptomatology, diagnosis, prognosis and treatment, the reader is referred to the excellent article of Dr. Gibney's which has been published in pamphlet form.

Correspondence.

The following correspondence explains itself:

NEW YORK, Feb. 14th, 1878.

EDITORS JOURNAL:

I have just received a pamphlet, reprinted from the ST. LOUIS MEDICAL AND SURGICAL JOURNAL, "on the Treatment of Fracture of the Femur, by Edward Brock, M. D.," in which the author says (p. 4): "Dr. F. H. Hamilton says the best coaptation of the fractured ends of the bone, aided by overcoming the contractile resistance of the muscles is all that can be accomplished. *There will always be some shortening.*"

I do not understand the first part of this sentence, but the latter part is intelligible, and if the writer means to say that I have said that there will always be some shorteneng after a fracture of the femur, he is mistaken. I have never said this either publicly or privately, nor anything which could be so construed. It seems proper that the writer should correct the statement as publicly as he has made it, or refer your readers to his authority. Perhaps I am not the person to whom he refers.

Yours truly,

FRANK H. HAMILTON.

MR. EDITOR:—I have just read the letter received from Prof. Frank H. Hamilton, and in answer will say that I did allude to him, and that I quoted the sentence which he refers to, from *The Journal of Materia Medica*, Nov., 1877, page 222, 2nd column, third paragraph from the bottom. It is as follows:

"The best coaptation of the fractured ends aided by overcoming the contractile resistance of the muscles, is all that can be accomplished. There will always be some appreciable shortening in these fractures, if measurements are taken with the care that they should be."

It may be that the Professor has been wrongly reported, but I gave the quotation in good faith.

Respectfully, EDW. BORCK.

3613 N. 9TH STREET, ST. LOUIS.

Excerpts.

The *Klinische Monatsblätter für Augenheilkunde*, edited by Dr. W. Zehender, for January, is received. Its uninterrupted publication during the long period of fifteen years is demonstrable evidence, both of its value and its undiminished popularity.

"Pemphigus of the Conjunctiva," by E. Pflüger, of Luzerne, is the first article, constituting half this number. Pemphigus of the *skin* is a rare disease, but fortunately much more rare than that of the conjunctiva. Several cases of this diseass are related, of which the following is a translation of the more practical features:

CASE I.—Mr. M. R., 60 years of age, a patient of Prof. LaSègne (les Angines) was attacked with pemphigus on the ala of the nose. Soon after the lid of the left eye became affected; thence it advanced to the cornea and conjunctiva, giving rise to palbral xerasis and subsequent loss of vision.

The disease afterwards invaded the throat and œsophagus, which caused an occasional sensation of constriction of these organs; it however remained limited to the parts designated. No confession of syphilis as a cause or complication was obtained.

CASE II.—Mr. S. P., 71 years of age, was a patient in the hospital of St. Louis in Paris. He had an attack of small pox when eight years old, and at the age of 60 he had an attack of pemphigus, of which he was cured, his eyes escaping complication. When now first seen the entire body was affected by the disease, involving the scalp and even the external meatus of the ears.

A month later his eyes became red as by a common conjunctivitis. In spite of the remedial agencies employed, the disease progressed, giving rise to lachrymation, mucus discharge, ectropion especially of the upper lids of both eyes; the ocular conjunctiva was also affected, becoming œdematous. Three small bullæ developed on nasal side of left eye, but the cornea hitherto had escaped, the photophobia and lachrymation subsided. The treatment consisted of solution of zinc to the eyes, and the exhibition of arsenic internally. In two months, the right eye appeared cured, but the disease persisted in the left; five days later the pemphigus had extended over the entire body; bullæ in the conjunctival sac, and two small blebs on nasal side of right eye. Adhesion of the lids to the globe and also to each other followed; the cornea of the left afterward sloughed, and giving way brought in its train the usual consequences—prolapse of the iris and loss of vision; to these speedily succeeded by progressive cachexia, bronchitis and death.

CASE III.—Reported by Kunkel: Miss R., after varied experiences of sickness supervening upon a constitution weak by nature, had a pustule upon the back of her left hand. During the six months following vesicles appeared over the entire body. Simultaneously they appeared upon the ocular and palpebral conjunctiva, accompanied by excessive photophobia, so that an examination without chloroform narcosis was impossible. Abolition of vision followed, she being able only to distinguish day from night. The vesicular eruption invaded the mouth and throat; this was followed by constipation, sleeplessness and pathological development of fat. Treatment consisted chiefly in the employment of opium to procure sleep. Amelioration of the symptoms had taken place a year and a half later, and with it a considerable improvement in vision, she being able to see men and carriages in the street.

Pemphigus appeared in an epidemic form in Leipsic in 1870, which continued for two months, during which Klemm saw twenty-six cases, of which twenty-three were children and three adults. The earlier periods of life seemed to furnish a greater proclivity to the disease and presented it in its greatest intensity. In three children under four years of age it occurred in a malignant form, and no one with fatal results. The mucous membranes remained intact in the milder cases; in three cases of the malignant form many vesicles appeared on the conjunctiva and also upon the mucous membrane of ths mouth. The eyes were intensely inflamed, the lids livid and excessively swollen, and the entire appearance resembled that of diphtheria. Convalescence proceeded very slowly extending *through many weeks*. The etiology of this disease is yet involved in great obscurity, the treatment consequently must be to a great degree empirical. In some cases an enlarged hyperæmic liver with disturbance of the biliary secretion have been observed as concomitants of this disease; but this condition is not alleged as the causes. One case of this distressing disease continued for ten and a half years when relief was found in death. Most cases are chronic in their character and rebellious to treatment. The rarity of pemphigus of the conjunctiva, is evidenced from the fact that of two hundred cases of pemphigus of skin, observed by Hebra, in not one was the conjunctiva involved. W. D.

Editorial.

Preparation of Papers.

Those who anticipate reading a paper at any of the meetings of Medical Associations, soon to be held, if they have not already done so, should at once commence its preparation. When men are appointed at one meeting to read a paper at the next, a year is not too long a time in which to gather the material and arrange it for writing. A year is hardly enough, if experiments shall be necessary to the preparation of the material.

To read a paper before a body of intelligent men, such as usually convene at our associations, is no small or trifling matter. There are but few men who are facile in composition, still fewer are there whose first draft of the material necessary for such a paper is fit for any eye but their own. Generally speaking, subjects grow in the hands of the writer. Even those who digest well their subject before putting pen to paper, will find in the composition, many things occurring to the mind as they write; so that it will be frequently found necessary to alter its arrangement, or to remodel the whole.

No one has the patience to listen to a hastily prepared paper, or one indifferently written. There are but few men who cannot improve a paper at every writing. Hence, a paper should be written more than once, and after the lapse of a considerable interval, in order to condense and to express thoughts in a better style and more perspicuous and descriptive language. After we have our skeleton clothed with considerable flesh, we should seek to adorn the body with garlands of fine language. There is no merit in presenting science in a nude state of facts. Neither is there strength and vigor in a fine dress. But fine thoughts lose nothing by appearing in a fine dress. Every paper should give us either good, vigorous thinking, or elegant diction. Even common place matter, if well presented, will be generally well received.

When persons are requested to prepare and read a paper, before an association of physicians, the request is made under the expectation that it will be worthy of publication. The Transac-

tions are the destiny of such papers. One should, therefore, consider himself as reading his paper in the presence of all who may read the Transactions. One's reputation will go with his paper; not only this, but the reputation of the Society that publishes it, is affected by it.

ILLUSTRATED DOCTORS.

At the meeting of the Medical Society on last Saturday evening, the 23rd ult., Dr. J. M. Scott laid before the Society, by request, a newspaper or hand-bill printed at Hot Springs, Ark., or at least hailing from that place, which was illustrated with pictures of the principal places in and about that Plutonic region. Heading one page of the paper and standing prominently in view, were the bust-pictures of three of the physicians who compete for the practice that flows into that place. Their faces have an intelligent appearance. They have good phrenological development. They have good heads, and apparently large and well developed brains. They look like clever fellows, disposed to do the *clean* thing, whatever that may mean in a region so apparently near the infernal lake! The paper went the round among the members present. This idea and manner of illustrating one's self is somewhat new in this *upper* country; but the *idea* may be a good one in a pecuniary sense *down there*, though the *manner* is hardly according to the code *up here*. The fact that the pictures of but three of the many physicians congregated there appear in the paper, seem to indicate that the taste of the editor was very *select and partial*, or, that only three could be found who had brass enough to stand the gaze of the paper's numerous readers. With one of the gentlemen illustrated it may have been "Hobson's choice;" but what there was in the *worth of an ell*, or the *rents of law* to charm the other two into a position before the world so auspicuous and unenviable, the editor does not state. For illustrated, if not illustrious doctors, commend us to these three at Hot Springs! C.

CALISTHENICS.

In the January number of the JOURNAL we alluded to the fact that a plan of Calisthenics or Free-body movements,

adapted to our school-rooms was being prepared by a Committee from the Gymnastic Societies in the city. The plan is completed. We have not merely examined it, but have seen the exercises performed, and believing it to be excellent, have no hesitancy in recommending it.

To the neglect of physical exercise in our school-rooms may many times be ascribed a general debiltity of the system, which has been attributed to hard study, and to confinement incident to school life. This is true especially in youth of both sexes in their growing period of life.

Persons leading a sedentary of quiet indoor life will be greatly benefitted by a systematic course of exercises. Such a course, taken as regularly as other exercises in the school, will be preventive to diseases that follow the school girl during life. It is only from a healthy body that we can expect a strong and vigorous mind.

Medical News Items.

The *Detroit Lancet*, Editors, Drs. Henry A. Cleland and Leartus Connor. No. 1 of Vol. 1. A journal of good appearance; intends to be "broad, liberal, expansive, original and independent." We welcome it to our table.

THE ARKANSAS MEDICAL RECORD.—We have received No. 1 of Vol 1, of this new journal. It is published in Little Rock by Dr. Jas. I. Hale and Mr. Ambrose Lynn. It is a sprightly little monthly of 16 pages. The editor has in it, a good article on "Organic Diseases of the Virgin Uterus." The abstracts show care. It proposes to be independent in all things and neutral in nothing. We wish it the success it deserves.

THE LINTON DISTRICT MEDICAL JOURNAL.—This journal is issued semi-annually, on the first of January and July, under the auspices and as the organ of the *Linton District Medical Society of Missouri*, edited by S. N. Russell, M. D., of Mexico, Mo., and J. H. Duncan, of Columbia. It is a journal of 72 pages of original and selected matter. The January number of the present year is on our table, and we find it filled with interesting papers, which are creditable to the profession of that part of our

State. We heartily wish the society the highest prosperity and efficiency, and the Journal success.

North Carolina Medical Journal.—No. 1 of Vol. 1, is before us. It is edited by Drs. M. J. DeRosset and Thos. F. Wood, and contains 66 pages. The editors say: "We revive the *North Carolina Medical Journal* without an apology for adding to the number of professional periodicals." There can be no doubt but that there is not only room, but a necessity for a journal in North Carolina, that is, if the profession of that State wish to keep themselves abreast of the general advance of medical knowledge. The contents of the *Journal* show industry on the part of the editors. The article on the Laceration of the Cervix Uteri, by Dr. J. Graham is an interesting and instructive one. Dr. W. W. Lane, in the third article relates a successful operation consisting of a "Resection of (5½ inches) Femur for United Fracture with Necrosis."

Book Notices and Reviews.

MEDICAL EDUCATION.

Contributions to the History of Medical Education and Medical Instructions in the United States of America, 1776-1876. Special reports prepared for the United States Bureau of Education. By N. S. Davis, A. M., M. D. Washington Gov. Print. Off. 1877.

Higher Medical Education. The True Interest of the Public and Profession. An Address to the 112th Course of Lectures in the Medical Department of the University of Pennsylvania. By Wm. Pepper, A. M., M. D., Prof. of Clinical Medicine.

The subject of medical education is at present receiving a considerable share of attention on the part of Medical Schools and Medical Journals, and more particularly by Medical Societies. The report of Dr. Davis gives a general view of the history of Medical Education for the last century; and when we contemplate the work done, we can but wonder that so much had been acquired, and the evils, usually attending the rapid growth of any enterprise, are not really greater as respects the present status of Medical Education in this country, than they are. Those who think that these evils are a reproach to the profes-

sion, should not forget that physicians are but men, and hence liable to make mistakes or hasten more rapidly than wisdom would suggest. To one who is disposed to calmly view the history of medical education in the United States, and who does not forget that unwisdom and imperfection attend all the works and enterprises of men, the present status of things Medical is not a matter of surprise, or such as to call forth unqualified condemnation. During these hundred years, the profession of medicine has not been the only thing in which men have engaged. During this time physicians have not been isolated from the rest of the world, or from the influences prevalent and powerful in other callings in life. One enterprise moves on with others, and one work feels the influence that is at work in the great aggregate. These outside influences have much to do in directing and molding the work and in effecting the results of individual enterprises, just as the individual man is affected by the social influences in the midst of which he moves. Hence, when we look back over the past and see *what* has been done, and *how* it has been done, we should rather rejoice that no greater evils have attended such a rapid progress of medical education.

It will be seen from the documents submitted by Profs. Davis and Pepper that medical schools were originally designed to supplement the private perceptor, and give to the pupil what the perceptor could not. Hence at the first but few persons were engaged as teachers in any one school. Several branches were taught by one professor; and at that time, this was evidently both a wise and a necessary arrangement. There is nothing strange or anomalous in this. It is characteristic of the beginning of all enterprises, and there is no reason to suppose that medicine *could* have proved an exception.

Now, if it was found that the school could do more for the student than the preceptor, and do it better, is it any wonder that medical schools soon became an established fact? Enterprises and institutions grow if they have life, as do all things that have life. As the schools were formed to meet demand, enterprises became institutions, and therefore the temporary gave way to the permanent. The preceptor gradually faded into the professor, and the school gradually arose. In the transition state evils arose, and unavoidably; but these will have only a temporary existence. It is so with States, and all kinds of industries that excite a molding influence over men and their institutions. The progress of medical education on the whole, has been very flattering to the pride of the professors. The college of three professors, in time became one of seven, and this of twelve; and the differentiation of professorships will continue until the medical organism reaches perfection in development.

We cannot but believe that there is virtue enough in medical schools and the profession at large to cover the evils now complained of. It certainly should be the interest of schools to give

to the world the very best evidence of their ability to teach and conduct medical education to the point required by the advanced position that science and art now occupies, by presenting in their graduates persons competent in knowledge and sufficiently practiced in hospitals to enter on the serious and responsible duties of the physician. That the present standard of medical education is not what it ought to be, is universally admitted but it is not so deficient as to merit and receive unqualified reprobation. Let the evils be pointed out, and what is needed be clearly stated, and these respectfully kept before the profession at large, and we venture the prediction that every virtue will be found in the schools and professors to do all that is required.

The Harvard University has for several years extended its medical course to three years, and requires a preliminary examination in literary education before matriculating its medical students, and the same plan has being inaugrated in the Medical Department of the University of Pennsylvania. The St. Louis Medical College has extended its course to three sessions, which will, no doubt, be followed by other Medical Colleges. This is a step in the right direction. When the standard of graduation shall be raised, the elevation of the standard of the preliminary education will follow in due course of time. C.

Mortuary Experience of the Mutual Life Insurance Company of New York, with Tabulated Reports and an Analysis of the Causes of Death. By G. S. Winston, M. D., W. R. Gillette, M. D., and T. E. J. Marsh, M. D. Printed by order of the Board of Trustees. Vol. 2, 1877.

This report is made by the medical officers of the company, and is a valuable contribution to the medical literature of Life Insurances. The medical officers of other Life Insurance Companies will find this report very serviceable in their work of judging of the value of reported risks. Especially are the statistics and conclusions based thereon of practical benefit to all physicians who examine life risks, and who desire and aim to more fully fix themselves for their responsible duties. We presume, however, that the report can be had by only those who examine for the company. C.

The Illinois State Medical Register for 1877–8. Published Annually, under the supervision of the Chicago Medico-Historical Society, with the co-operation of the Illinois State Medical Society. D. W. Graham, A. M., M. D., Editor. Committee on Publication: Jno. Bartlett, M. D., F. C. Hotz, M. D., Jno. E. Owens, M. D., W. G. Days, M. D., D. W. Graham, M. D., *Ex-Officio*, Chicago. W. T. Keener, 63 and 65 Washington Street. 1877.

* This volume is the legitimate successor of the Chicago Medical Register and Directory, issued as a private enterprise in 1872 by Drs. T. D. Fitch and Norman Bridge, and again pub-

lished in 1874 under the auspices of the Chicago Medico-Historical Society, with A. R. Jackson, M. D., as editor."

Its aim is to represent the interests of the medical profession of the entire State.

It contains a list of physicians in Chicago, and a list of those residing in other parts of the State; a list of *some* of the Medical Associations in the country other than those held in the State of Illinois; a list of the Charitable Institutions of that State; a roster of the U. S. Examining Surgeons for Pensions, and a digest of the laws of the State, most useful to the Medical Profession. This latter is made by O. R. Brouse, A. M., of the Chicago bar.

The State of Missouri should have a directory like it.

Modern Surgical Therapeutics of Surgical Diseases and Injuries, by George H. Napheys, A. M., M. D., etc. Revised and brought down to the most recent date. 1 Vol., 8vo. 600 pages. Price, mailed postpaid, to any address. Cloth, $4.00; Full Leather, $5.00.

We have taken time to carefullly examine this book, and have come to the conclusion that it is, as it portends to be, a very complete compendium of formulæ, dressings and methods of treatment of surgical diseases and injuries. These formulæ, etc., are those that are the most popular at the present time. This is the only work known to us that treats on Therapeutics as relates to Surgery, Even a short perusal of the book, is all that is required to satisfy the reader that it will be a valuable aid in the practice of Surgery.

Cerebral Hyperæmia, the Result of Mental Strain or Emotional Disturbance. By William A. Hammond, M. D. G. P. Putnam's Sons, New York, pp. 108. 1878. [To be had at the Book and News Company, 305 N. 4th St.]

Dr. Hammond is too well and favorably known to require an enumeration of his relations to the profession, as a member of various societies, etc.

This little work contains weighty and valuable matter. It is a very instructive book. The style is clear, concise, and expressive. Much is crowded into this small compass. Every physician should procure a copy who has not already provided himself with one. C.

Transactions of the Twenty-Second Annual Session of the Michigan Dental Association, held at Ann Arbor, October, 1877.

This is a pamphlet of ninety pages gotten up in a style that reflects credit upon the publishers.

It contains the minutes, essays and discussions of the meetings, the constitution and by-laws of the Association, its code of

ethics, and a list of active members, also a list of dentists of Michigan.

It appears from the above list that of the three hundred and ninety dentists in the State, only thirty-one are graduates of dental colleges. We would liked to have seen a much larger proportion.

The essays and discussions of the meetings are of interest to dental practictioners, although nothing particularly new was brought forward.

Two papers on "Dental Education" seems to indicate that the dentists of the State of Michigan are beginning to realize the fact the proper way for its profession to advance as a profession, is by using more discretion in the admission into the Dental Colleges, of persons as students of dentistry, and by requiring both a literary and medical education as a necessary preliminary for a dental graduate.

The book is worthy the perusal of any one interested in the study of dentistry. F.

Transactions of the Medical Society of the State of New York for the year 1877. pp. 479.

This volume of Transactions contains many interesting and instructive papers on important subjects, and is hence a valuable contribution to Medicine and Surgery. Some of the papers are of more than usual interest. The volume also contains a catalogue of the various societies of the State; their membership and some obituary notes. It is printed in quite an elegant and substantial form.

We hope to see many such issued under the auspices of that Society. C.

The Action of Medicines. By Isaac Ott, A. M., M. D. Formerly demonstrator of experimental physiology in the University of Pennsylvania. With Twenty-two Illustrations, Lindsay & Blakiston, publishers, Philidelphia, 1878. pp. 164.

This work is particularly useful to such as are engaged in physiological experiments, but it is also of interest to the physician. The author divides his subject into four heads:

1. How to study the physiological action of Medicines.
2. Action on Nervous System.
3. Action on Circulatory Apparatus.
4. Action of Medicines.

A Case of Syphiltic Aphasia. By L. P. Yandell, Jr., M. D., of Louisville. (Reprinted from the *Medical News*, of Dec. 8, 1877.)

A Clinical Lecture on Aphasia by the same author. Reprinted from the same Medical Jounal.

In these two articles are given twelve cases. Every case of

the kind is full of interest, but to make them instructive, requires the collation of large number of them, together with a complete history of their *head* symptoms, as well as a history of their occupation and their mode of living.

The Man and the Physician. A Sermon Preached in the West Church, Boston, Sunday Dec. 9, 1877. C. A. Bartol. "Dedicated to Elizabeth Loring Clark, in token of a Common Memory, Love snd Hope." Boston, 1878.

Extract from the Sermon. This is an excellent tribute paid to the character of of a Model Man and Physician.

Books and Pamphlets Received.

Battey's Operation by J. Marion Sims, A. M. M. D., Founder of the Woman's Hospital of the State of New York, and formerally Surgeon to the same: Ex-President of the Am. Med. Association: Hon. Fellow of the Obstetrical Societies of London, Dublin, and Berlin: Hon. Fellow of the Royal Academy of Medicine, Brussels, and the Medical Society of Christiania: Knights of the Legion of Honor (France); Commander of Orders of Spain, Portugal, Italy, etc. [Reprinted from the British Medical Journal, December, 1877.] London.

Case of Molluscous Tumor of the Ear, Complicated with Polypi and a Fistulous Opening behind the Auricle communicating with the Internal Ear, and stretching up to a Cavity on the Temple *two inches* above the Auricle under the Muscular Structures. By Dr. J. J. Kirk Duncanson. (Reprinted from the *Edinburgh Medical Journal*, Nov., 1877.) [From the Author. A very interesting case. Thanks for its reception. Ed.]

Case of Unilateral Cerebellar Abscess and Tumors without Presistence of Symptoms. Remarks on Unilateral Diseases of the Cerebellum. Other Cases Cited. By C. H. Hughs, M. D. Read before the Association of Superintendents of American Asylums for the Insane, at St. Louis, May, 1877. (Reprinted from the *Journal of Mental and Nervous Diseases*, Oct., 1877.

Report on Antiseptic Surgery, Read before the Surgical Section of the International Medical Congress, Philadelphia, Sept. 1874, by John T. Hodgen, M. D., Prof. of Surgical Anatomy and

of fractures and Dislocations in the St. Louis Medical College. [Extracted from the Transactions.]

The Lymphatic Theory of Lymphatic Infection, with a New View of the Relation between the Chancre and Chancroid, and Suggestions for the Treatment of Syphilis. By WM. A. HARDAWAY, M. D., St. Louis. Member of the American Dermatological Association. (Reprinted from the New York *Medical Journal*, Dec. 1877.)

On the Dressing of Stumps. Old Method—Lester's Anticeptic Plan—The Bordeaux Treatment of Stumps, Burrow's Plan, Modified by the Author—Comparative Statistics. By LOUIS BAUER, M. D., M. R. C. S., Eng., Etc. Reprinted from the St. Louis *Clinical Record*, Nov. and Dec., 1877.

Proceedings of the Associations of Medical Officers of American Institutions for Idiotic and Feeble-Minded Persons. Sessions held in Media, Penn., June 6–8, 1876, and in Columbus, June 12–15, 1877.

Baths and their Uses in the Treatment of Diseases of the Skin. A valedictory address to the Classes on Diseases of the Skin, at the Philadelphia School of Anatomy and Surgery, Jan. 1878, by JOHN V. SHOEMAKER, A. M. M. D. Published by the Class.

A Manual for Nursing. Prepared for the Training School for Nurses attached to the Bellevue Hospital. "Dr. Victoria White, to whom really belongs the credit of editing and compiling this Manual." G. P. Putnam's Sons, New York, 1878. pp. 142.

On the Nature, Origin and Prevention of Puerperal Fever. By W. T. LUSK, M. D., of New York. Extracted from the Transactions of the International Medical Congress, Philadelphia, Sept., 1876.

On Certain Points Relating to the Nature and Treatment of Lupus. By HENRY G. PIFFARD, A. M., M. D. (Extracted from transactions of the Medical Society of the State of New York, 1877.)

Surgical Treatment of Extra-uterine Submucous Fibroids. A Case by E. T. EASLEY, A. M., M. D., of Little Rock, Ark. (Reprinted from the *Richmond and Louisville Medical Journal*, Feb., 1878.)

A Catalogue of the Officers and Students in the Several Departments of the Washington University, with the Courses of Studies for the Academic Year, 1877—78. St. Louis.

Twenty-Second Annual Report of the Trustees of the State

Lunatic Hospital at Northampton, Mass., for the year ending Sept., 1877. (From Dr. Pliny Earle, Superintendent.)

Malaria and Struma in their Relations to the Etiology of Skin Diseases. By L. P. Yandell, Jr., M. D., Louisville, Ky. (Reprinted from *American Practitioner*, Jan., 1878.)

A Review of the Recent Theories of Brain and Nerve Action. The Use of Electricity in Medicine and Surgery, etc. By John J. Caldwell, M. D., Baltimore, Md., 1877.

The Metric System. By Hugh Hamilton, M. D. Read before the Medical Society of the State of Pennsylvania. (Reprinted from the Society's Transactions for 1877.)

The Mechanism and Treatment of Pulmonary Complications of Acute Cardiac Disease. By Beverly Robinson, M. D. (Reprinted from the *Medical Record*, Nov., 1877.)

Twenty-Fifth Annual Announcement of the Medical Department of the University of Vermont, and State Agricultural College, Burlington, Vt., for the year 1878.

Report of the Pennsylvania Hospital for the Insane, for the year 1877. By Thos. S. Kirkbride, M. D. Published by order of the Board of Managers.

Transactions of the Thirty-Second Annual Meeting of the Ohio State Medical Society, held at Put-In-Bay, June 12, 13 and 14, 1877, pp. 203.

Annual Address by the President, Fordyce Barker, M. D., of New York. Reprint from Volume II, Gynæcological Transactions, 1877.

Clinical Gynæcology by W. H. Wathen, M. D. (Reprinted from the Richmond and Louisville Medical Journal, Jan. and Feb. 1878.

Twenty-Fifth Annual Report of the Pennsylvania Training School for Feeble Minded Children. Media, Delaware County, Oct. 1877.

Transactions of the Seventy-First Annual Meeting of the Medical Society of the State of New York, for the year 1877, pp. 479.

Fifty-Second Annual Report of the Massachusetts Charitable Eye and Ear Infirmary, for the year 1877. Boston, Mass.

A New Catalogue of Medical Books, for sale by the Gray & Baker Book and Stationery Co., St. Louis.

Annual Announcement of the Toledo School of Medicine, Toledo, Ohio, for the session of 1878.

Seventh Annual Report of the Trustees of the New York Ear Dispensary. 1877.

Obituaries.

LUNSFORD P. YANDELL, SR., M. D.

The papers have announced the death of Prof. L. P. YANDELL, of Louisville, Ky., and have spoken of him in terms of the highest praise. He died on the 4th of Feb., in the 73rd year of his age.

His death created a void that will be long felt, not only in the city and State of which he was a resident, but in the States of the South and West, where he was so well and so favorably known through his long connection with the Medical department of the University of Louisville, an institution whose annual attendance showed in what estimate it was held by the profession and public in those sections of our country from which its large annual classes were drawn. By thousands of those students was he remembered and esteemed, and by them will his death be deeply regretted.

More than thirty years ago I had the pleasure of hearing his lectures on Chemistry, and remember him well. He stands before my mind now. I see distinctly his form, and gesture, and manner of address. I hear his clear and distinct articulation, and remember the accuracy and closeness of his reasoning and fullness of statement. He was an interesting speaker, a lucid and vigorous thinker, and one of the best lecturers I have ever listened to. He always made the subject of his lectures interesting. He never failed to leave the matter of his lecture well understood by the attentive listener. Chemistry in his hands was an interesting study.

He was a voluminous writer. His style was elegant, his diction chaste and forcible, and its movement bold and energetic. In his force and drive he *meant* conviction, if he did not effect it. He was an earnest man, a man of convictions, of force and will, and hence a positive man. To the forward he was forward, and to the gentle he was gentle. This may be but half christian, yet it is the character of a man who has convictions, and acts up to them. He was intolerant of meanness, poltroonery and falsehood, and his invective, when excited by them, was terrible and

severe. When aroused by an exhibition of these, his flaming words fell with terrific effect on the head of the offender. I have heard the crashing sweep of his indignation, and I but admire the honesty and courage that met assult by repulse. But even in his fiercest onslaughts his language never descended to the grade of abuse or vituperation; was never undecoming the dignified gentleman. His words fell like the blows of a Damascus blade. There were no ragged edges to his wounds. They were keen, smooth and incisive. Yet he was a gentle man, kind in heart, and soft in speech. We confess to a feeling of satisfaction when we see meanness stripped of its disguise, poltroonery exposed and lashed as it deserves and falshood torn into shreds, and especially when it is done in a style and language that do no discredit to a Junius. But his field was the lecture room. The *Journal* seemed to employ his leisure hours, and give work to his active mind.

He graduated in Baltimore, Md., in 1825; became a professor in Transylvania University in 1831, and in 1837, became professor in the University of Louisville, which place became thenceforth his residence, except for a few years, when he took a professorship in the Memphis School. In 1867 he returned to Louisville and resumed the practice of medicine, as stated in a notice of his death in the *American Practitioner* for February.

He seemed to have had a book in preparation. This may appear before long, and serve still further to keep alive his memory by a profession he served so long and so faithfully. C.

Dr. Bouvier, of Paris, France. Nov. 21st, 1877, at a very advanced age.

Edmund Randolph Peaslee, M. D., LL D., Jan 21st, 1878. Aged 64.

Henry Daniel Ruhmkorff of magneto-electric fame, died at Paris on the 20th of Dec., 1877. Aged 75.

On the 25th of Sept., 1877, aged 62, Dr. C. A. Wunderlich, of Leipsic.

On the 7th of January, at Carrig Braec, Howth County, Dublin, William Stokes, M. D., D. C. L., F. R. S., aged 74.

Death of Claude Bernard is announced. Aged 65 years. [In our next issue we will give an extended notice of his life and achievements.]

METEOROLOGICAL OBSERVATIONS.

By A. Wislizenus, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in the night, the maximum at p. m. The monthly mean of the daily minima and maxima added and divided by 2, gives quite a reliable mean of the monthly temperature

THERMOMETER, FAHRENHEIT—JANUARY, 1878.

Day of Month	Minimum	Maximum	Day of Month	Minimum	Maximum
1	28 5	43 5	18	35.5	**54.5**
2	31 0	35 0	19	38 0	43.5
3	27 0	35 5	20	40 0	45.0
4	20 0	23 5	21	38 5	42.5
5	15 0	31 0	22	31 0	47.0
6	13 0	23 5	23	24 5	38.0
7	**8.5**	23 0	24	28 0	52.5
8	20 0	35 0	25	38 0	49.0
9	32 0	44.0	26	31 5	40.5
10	20 0	37 0	27	37 5	43.0
11	31 5	41 0	28	32 5	36 0
12	32.0	48.0	29	31 0	39.0
13	34 5	39 5	30	32 0	35.0
14	33 0	35 0	31	30 0	35.5
15	30 5	41 0			
16	28 5	45.0	Means	29 2	39 9
17	33 0	52 5	Monthly Mean	34.5	

Quantity of rain, 2.48 inches.

ERRATUM.—In December, 1877, the highest temperature was 69 0, on the 18th.

MORTALITY REPORT.---CITY OF ST. LOUIS.

FROM JAN. 13, 1878, TO FEB. 9, 1878, INCLUSIVE.

Small-Pox	1	Inanition, Want of Breast Milk, etc.	35	Meningitis and Encephalitis	9
Measles	1			Convulsions	18
Syphilis, Cong'al	1	Alcoholism	2	Direct Effect of Solar Heat	
Scarlatina	2	Rheumatism and Gout	2	Apoplexy	9
Pyæmia	2			All Diseases of the Brain and Nervous System	20
Erysipelas	3	Cancer	3	Cirrhosis of Liver and Hepatitis	11
Diphtheria	9	Phthisis Pulmon	57	Enteritis, Gastro-Enteritis, Peritonitis, and Gastritis	11
Membranous Croup	7	Bronchitis	16	Bright's Disease and Nephritis	9
Whooping Cough		Pleuritis		Cyanosis and Atelectasis	5
Typhus Fever	1	Emphysema	3		
Typhoid Fever	5	Pneumonia	51		
Cérebro Spinal Fe.	5	Heart Diseases	9		
Remittent, Intermittent, Typho-Malarial, Congestive and Simple Continued Fevers	12	Aneurism	1		
		Marasmus—Tabes Mesenterica and Scrofula	13		
		Hydrocephalus and Tubercular Meningitis	5		
Puerperal Disea's	8				
Diarrhœal "	8				

Premature and Preternatural Birth	6
Surgical Operat'ns	
Deaths by Suicide	3
Deaths by Acci'nt	11
Total Deaths from all Causes	376
Total Zymotic Diseases	101
Total Constitutional Diseases	53
Total Local Diseases	197
Total Develop'tal Diseases	11
Deaths by Viol'ce	14

CHAS. W. FRANCIS, *Health Commissioner.*

COMPARATIVE MORTALITY RATES.

CITIES.	Estimated Population, July 1, 1878.	Total Mortality for four weeks, ending Feb. 9, 1878.	Annual Death Rate per 1000 for the four weeks.
New York	1,093,171	1,948	23 16
Philadelphia	876,118	1,727	23 00
Brooklyn	549,438	748	18.48
St. Louis	500,000*	376	9.68
Chicago	460,000	494	14.91
Boston	375,476	516	19.00

*Estimated population, May 1, 1877, 501,489.

Animal Vaccine Virus of the Beaugency Stock.

PROPAGATED BY

R. M. HIGGINS, M. D.,

—AT THE—

MISSOURI VACCINE FARM.

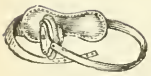
QUILLS, (half quill charged on convex surface, square cut end) each, - $ .25
" per half doz. " " " " " " - - 1.25
" per dozen " " " " " " - - 2.00
CRUSTS, (furnished, but not recommended) - - $2.00 to $3.00
All FAILURES with QUILLS duplicated.

The PURITY of humanized vaccine MUST often be of doubtful origin. The PURITY of cow-pox virus of the Beaugency stock is unquestionable, as it originated in the cow, and has been perpetuated since through that animal only.

R. M. HIGGINS, M. D.,
Manchester, St. Louis Co., Mo.

☞Fresh Virus always on hand at office of THE JOURNAL.

W. MACKWITZ
ENGRAVER ON WOOD.
120 N. THIRD STREET.
ESTABLISHED 1856 ST. LOUIS, MO.



CHARLES SCHLEIFFARTH,

No. 608 North Fourth Street,
Bet. Washington and Christy Avenues. ST. LOUIS, MO.,
Manufacturer and Importer of and Dealer in

Trusses for Radical Cure,

Supporters and Shoulder Braces.

Surgical and Anatomical Mechanician; Inventor and Manufacturer of Apparatus for Curvature of the Spine, Wry Neck, Anchylosis, Club Feet, Bow Legs, Weak Ankles, Splints for fractures and dislocations; Silk and Elastic Stockings for Varicose Veins and Sore Legs; Knee Cap and Anklets for Swollen and Weak Joints; also Suspensory Bandages —being a new style—and Bandages of every description, etc., etc., etc.

Crutches of all Sizes. **Dr. Bly's Artificial Legs.**

☞Ladies will be waited upon by a competent female at private salesroom.

Refers to Profs. E. H. GREGORY and J. T. HODGEN, and most of the Surgeons and Physicians of this city. Office open from 7 o'clock a.m., to 7 p.m.

Tilden & Co.'s Extract of Malt.

AND ITS COMBINATIONS.

It is prepared according to Liebig's method, *and is evaporated in Vacuo at less than* 100° *F., a method we have employed for over thirty years*, and at no point in its preparation is it subjected to a temperature to injure or impair the converting or digestive property of the important element called DIASTASE.

Among the merits which distinguish the EXTRACT of MALT prepared by us from the special formula of Baron Liebig, is its great richness in sugar of Malt, prepared in a VACUUM at a low temperature; it preserves the true amber color indicative of purity, as well as proper method of preperation, as also—the following elements unimpaired: *Sugar of Malt—Dextro-Maltose—Dextrine—Diastase— Albuminoids— Carbo-hydrates— Phosphates and Phosphoric Acid*

Pure Extract of Malt.—This is of light amber color, and is the true Extract of Malt without flavoring

Pure Extract of Malt with Hops.—For those who prefer it with Hops to obtain the bitter tonic of strong ale.

Pure Extract of Malt with Firwein.—This is combined with one-third Firwein and has been used with marked success in cases of consumption with impaired digestion

Pure Extract of Malt with Elixir Iodo-Bromide of Calcium Compound.—Alterative.—Equal parts of each.

Pure Extract of Malt, Ferrated.—Each teaspoonful contains two grains Pyrophate Iron.

Pure Extract of Malt with Quinine and Iron.—Each teaspoonful contains two grains of Citrate of Iron and Quinia.

Pure Extract of Malt with Iodide of Iron.—Each teaspoonful contains two grains of Iodide of Iron.

Pure Extract of Malt with Iodide of Iron and Manganese.—Each dessert-spoonful contains one grain each

Pure Extract of Malt with Hypophosphites.—Each dessertspoonful contains two grains Hypophosphite Lime, two grains Hypophosphite Soda, one and one-half grains Hypophosphite Potassa, and one grain Hypophosphite Iron.

Pure Extract of Malt with Chemical Food. (Phosphates Lime, Soda, Potassa and Iron.)—Each dessertspoonful contains the same proportion of Chemical Food

Pure Extract of Malt, with Beef, Wine and Iron.—Each tablespoonful represents two grains Soluble Citrate of Iron, one ounce finely-chopped raw lean Beef, with equal quantity of Sherry Wine and Pure Extract of Malt.

Pure Extract of Malt with Pepsin.—Each dessertspoonful contains three grains of Pepsin

Pure Extract of Malt with Pepsin and Bismuth.—Each dessertspoonful contains three grains of Pepsin and one grain of Ammonio-Citrate of Bismuth

Pure Extract of Malt with Cod Liver Oil.—Equal parts.

Pure Extract of Malt with Cod Liver Oil and Iodide of Iron.—Each dessertspoonful contains one grain Iodide of Iron.

Pure Extract of Malt with Cod Liver Oil and Phosphorous.—One dessertspoonful contains one one-hundredth grain of Phosphorous

Pure Extract of Malt with Cod Liver Oil, Iron and Nux Vomica.

TILDEN & COMPANY,

NEW LEBANON, N. Y.

176 William Street, New York.

Valuable Medical Books

PUBLISHED AND FOR SALE BY

LINDSAY & BLAKISTON,

PHILADELPHIA,

Many of them at REDUCED PRICES and of RECENT IMPORTATION, sent by Mail, postage paid, upon receipt of the price affixed.

DR. HAYDEN'S DISEASES OF THE HEART AND AORTA.

Including the Anatomy and Physiology of the Heart; Phenomena of the Heart's Action in relation to its Modification by Disease; Physical Signs of Disease of the Heart; Causes of Disease of the Heart; Classification of Disease of the Heart—Pericarditis; Diseases of the Substance of the Heart; Endocarditis and Disease of the Valves; Formation and Migration of Blood-clots; Neurosis of the Heart; Diseases of the Aorta, etc. In 2 octavo volumes of over 1200 pages. With upwards of 80 Illustrations on Wood and Steel. Price, - - - - - - - - - - $6.00

"Dr. Hayden's elaborate monograph may fitly be compared with Dr. Stoke's classical treatise. For some time he has been engaged upon this comprehensive work on Cardiac Disease, and those who knew the zeal with which he has pursued this his favorite study for many years, looked forward with interest to its appearance. It represents an amount of patient toil and laborious investigation which are not common characteristics of modern medical literature. The style is clear and vigorous, and ample recognition is paid to the labors of all from whom the writer has derived any assistance. An excellent index concludes a work upon the completion of which we cordially congratulate the author."—*Dublin Jour. Med. Science.*

CORMACK'S CLINICAL STUDIES.

Illustrated by numerous Cases observed in Hospital and Private Practice. By Sir John Rose Cormack, M. D., Edinburgh and Paris, Physician to the Hertford British Hospital of Paris, Translator of "Trousseau's Clinical Medicine" for the Sydenham Society, etc., etc. In two volumes, octavo. Price, - - - - - $5.00

"It is in every respect a good book; and we may say this without hesitation. We use the adjective good in reference to these 'Clinical Studies' for several reasons. They indicate remarkable honesty, care and accuracy of observation, the facts being as a rule fully noted at the bedside of the patient, and given so much in detail, irrespective of preconceived opinions or ideas, that they can be confidently accepted by the reader. The author is evidently an enthusiast in his profession, sparing himself neither trouble nor fatigue."—*Edinburgh Medical Journal.*

"They form a valuable repository of facts carefully collected during a lifetime devoted to the pursuit of medicine in its widest sense."—*Medico-Chirurgical Review.*

MADDEN'S HEALTH RESORTS OF EUROPE AND AFRICA.

For the Treatment of Chronic Diseases. By T. M. Madden, M. D., Author of "Climatology and the Use of Mineral Waters." A Handbook, the result of the Author's own observations during several years of Health-Travel in Many Lands, containing, also, the substance of the Author's former Work on "Climatology and the Use of Mineral Waters." Octavo. Price, - - - - - - - - $2.50

MAUNDER'S SURGERY OF THE ARTERIES.

Including Aneurisms, Wounds, Hæmorrhages, Twenty-Seven Cases of Ligatures; Antiseptic, etc. By C. F. Maunder, F. R. C. S., Surgeon to the London Hospital and formerly Demonstrator of Anatomy at Guy's Hospital. With 18 Illustrations. Price, - - - - - - - - - $1.50

Sanderson's Handbook for the Physiological Laboratory.

Being Practical Exercises for Students in Physiology and Histology. By E. KLEIN, M. D., of the Brown Institution, London.
J. BURDON-SANDERSON, M. D., of University College, London.
MICHAEL FOSTER, M. D., of Trinity College, Cambridge.
T. LAUDER BRUNTON, M. D., of St. Bartholomew's Hospital.
Edited by J. BURDON-SANDERSON. In 2 volumes. Volume I containing the TEXT; volume 2 the Illustrations, consisting of over 300 hundred figures. Price, $7.00 or the 2 volumes bound in one, price, $6.00.

"In this work the student is conducted by a regular and carefully considered scheme from the observation of the simplest objects to the interpretation of the most complex phenomena that occur in the body. The performance of the experiments in the book will give him so thorough a knowledge of Physiology as will stand him in good stead in whatever branch of medical practice he shall hereafter be engaged in. The book is perfectly unique, and will prove of equal value to both students and teachers."—*Medical Times and Gazette.*

WYTHE'S MICROSCOPICAL TEXT-BOOK.

A Manual of Microscopy and Compendium of Microscopic Science; Micro-Mineralogy, Micro-Chemistry, Biology, Histology, and Pathological Histology. Being the Third Edition Revised, Rewritten and Enlarged, with 27 full-page Colored Plates, each containing numerous Figures and other Illustrations. By J. H. WYTHE, A. M., M. D., Professor of Microscopy and Biology in the Medical College of the Pacific. 1 volume, octavo. Price, - - - - - - - $4.50

"This popular hand-book, which has passed rapidly through two large editions, has now been out of print for some years. The author is preparing a new edition for the press, has entirely rewritten it, and has thus been able to bring it up and adapt it fully to the present advanced state of the science. All the subjects are treated of with sufficient fulness to meet the wants of the student and general practitioner. Many additional illustrations have been added, all of them entirely new, and most of them very beautifully executed in colors."

COHEN ON INHALATION.

Its Therapeutics and Practice. Including a Description of the Apparatus Employed, and a Record of Numerous Experiments, Physiological and Pathological. With Cases and Illustrations. By J. SOLIS COHEN, M. D. A new, enlarged edition. Price, - - - - - - - - $2.75

"What strikes one particularly in each of the many contributions made by Dr. Cohen to medical literature of the branch of study in which he has become so well known, is the candid spirit and thoroughness in which his investigations have been conducted. Of this we are cognizant by the perusal of, and frequent reference to, his exhaustive treatise on Croup and its relation to Tracheotomy, and many scattered articles from his pen. We commend this work to all who desire to possess a thorough insight of what pertains to the science and art of inhalation in all its varieties."—*American Journal Medical Sciences.*

WATERS ON THE DISEASES OF THE CHEST.

Their Clinical History, Pathology and Treatment. Second Edition, Revised and Enlarged. With numerous Illustrative Cases, Chapters on Hæmoptysis, Hay Fever, the Use of Chloral in Diseases of the Chest, and Lithographic Plates. By A. T. H. WATERS, M. D., etc. Octavo. Price, - - - - - - $4.00

"We congratulate the profession on the appearance, in an enlarged form, of Dr. Waters' book * * It is one of the most valuable treatises hitherto published on Diseases of the Chest."—*Dublin Medical Journal.*

Foster's Lectures and Essays on Clinical Medicine.

Including Ulcer of the Stomach, Cyanosis, Ether in Phthisis, Digitalis in Heart Diseases, Rupture of Heart Valves, Acute Rheumatism, Diabetes, Pseudo-hypertrophic Paralysis, the Sphygmograph and Cardiograph, Thoracentesis by Aspiration. Revised and Enlarged by BALTHAZAR FOSTER, M. D., Professor of Medicine in Queen's College. With Engravings. Octavo. Price, - - - - $3.50

"The volume is an evidence of honest work, done by a good observer, and a careful and well informed physician."—*The Lancet.*

Hewitt's Diagnosis, Pathology and Treatment of the Diseases of Women,

Including the Diagnosis of Pregnancy. By GRAILY HEWITT, M. D., F. R. C. P., Professor of Midwifery and Diseases of Women, University College; Obstetric Physician to the Hospital, etc. The Third Edition, Revised, Enlarged, Rearranged and mostly Rewritten. With 132 Illustrations, many of them entirely new. The new edition, which is substantially a new work, contains a full exposition of the "mechanical" System of Uterine Pathology, and a Resume of the Author's Hospital Cases, extending over a period of upwards of four years. Price, in cloth, - - - $4.00

"A volume of 740 pages, numerously illustrated. The style is attractive and practical, the mechanical execution of the work creditable, and, as a reliable guide in the treatment of diseases peculiar to women, it has no superior.—*Canada Lancet.*"

"For those who desire full instruction, and careful illustration in this department, nothing can equal the work before us; the philosophy of mechanics, and the modes of application, are fully presented."—*Buffalo Medical and Surgical Journal.*

"It is unquestionably one of the most valuable guides to a correct diagnosis to be found in the English language."—*Richmond and Louisville Medical Journal.*

GREENHOW ON ADDISON'S DISEASE,

Being the Cronian Lectures delivered before the Royal College of Physicians. Revised and Illustrated by numerous Cases, and 5 full-page Colored Engravings. By E. HEADLAM GREENHOW, M. D., F. R. C. P. One volume, octavo. Price, - $3.00

The *London Medical Times and Gazette* says of this volume. "We have before us the most elaborate monograph, and the most able treatise that has heretofore appeared upon the subject of this curious malady. In Dr. Greenhow's work we have the outcome of the whole subject, after years of clinical and pathological study. The illustrations are admirable, and the intrinsic merits of the whole work are very great."

GREENHOW ON CHRONIC BRONCHITIS,

Especially as connected with Gout, Emphysema and Diseases of the Heart. Price, - - - - - - - - $1.50

"Of all the works yet written on Chronic Bronchitis, this is undoubtedly the best. The style is clear and to the point, and the principles of pathology and treatment eminently correct and practical. It is a positive addition to our medical literature."—*Journal Psychological Medicine.*

Prof. Agnew on the Laceration of the Female Perineum and Vesico-Vaginal Fistula,

Their History and Treatment, with numerous Illustrations. By D. HAYES AGNEW, M. D., Professor of Surgery in the University of Pennsylvania. Octavo. Price, $1.50.

"Prof. Agnew has been a most indefatigable laborer in this department, and his work stands deservedly high in the estimation of the profession. It is well Illustrated, and full descriptions of the operations and instruments employed are given."—*Canada Lancet.*

Acton's Functions and Disorders of the Reproductive Organs,

In Childhood, Youth, Adult Age, and Advanced Life, considered in their Physiological, Social and Moral Relations. Fourth American from the Fifth London Edition. By WILLIAM ACTON, M. R. C. S., etc. Carefully revised by the Author, with additions. Price, - - - - - - - - - $2 50

"Mr. Acton has done good service to Society by grappling manfully with sexual vice, and we trust that others, whose position as men of science and teachers enable them to speak with authority, will assist in combating and arresting the evils which it entails. The spirit which pervades his book is one which does credit equally to the head and to the heart of the author."—*British and Foreign Medico-Chirurgical Review.*

Byford on the Chronic Inflammation and Displacement of the Unimpregnated Uterus.

By W. H. BYFORD, A. M., M. D., Professor of Obstetrics and Diseases of Women and Children in the Chicago Medical College, etc. A New, Enlarged, and thoroughly Revised Edition, with numerous Illustrations. Octavo. Price, - - $2 50

"Dr. Byford writes the exact present state of medical knowledge on the subjects presented, and does this so clearly, so concisely, so truthfully and so completely, that his book on the uterus will always meet the approval of the profession, and everywhere be regarded as a popular standard work."—*Buffalo Medical and Surgical Journal.*

Hillier's Clinical Treatise on the Diseases of Children.

By Thomas Hillier, M. D., Physician to the Hospital for Sick Children, and to University College Hospital, etc. Octavo. Price, - - - - - $2 00

"It is eminently the kind of book needed by all medical men who wish to cultivate clinical accuracy and sound practice."—*London Lancet.*

Black's Functional Diseases of the Renal, Urinary and Reproductive Organs.

With a General View of Urinary Pathology, etc. By D. Campbell Black, M. D., L. R. C. S., Edinburgh, Member of the General Council of the University of Glasgow, etc., etc. Price, - - - - - - - - - - - - $2 00

"The style of the Author is clear, easy and agreeable .....his work is a valuable contribution to medical science, and being penned in that disposition of unprejudiced philosophical inquiry which should always guide a true physician, admirably embodies the spirit of its opening quotation from Prof. Huxley."—*Phila. Med. Times.*

Black's Lectures on Bright's Disease of the Kidneys.

Delivered at the Royal Infirmary of Glasgow. With 20 Illustrations. Octavo. Price, - - - - - - - - - - - - - $1 50

Radcliffe's Lectures, on Epilepsy, Pain, Paralysis,

And other Disorders of the Nervous System. By Charles Bland Radcliffe, M. D., Fellow of the Royal College of Physicians, of London, etc. With Illustrations. Price, - - - - - - - - - - - - $1 50

"The reputation which Dr. Radcliffe possesses as a very able authority on nervous affections will commend his work to every medical practitioner. We recommend it as a work that will throw much light upon the Physiology and Pathology of the Nervous System."—*Canada Medical Journal.*

SANSOM ON CHLOROFORM.

Its Action, Modes of Administration. etc. By A. E. Sansom, M. D., Physician to King's College Hospital, etc. Price, - - - - - - - - - $1 50

"The work of Dr. Sansom may be characterized as most excellent. Written not from a theoretical point of view, but showing considerable experimental study, and an intimate clinical acquaintance with the administration of these remedies, giving the latest information upon every point; it is just the work for the student and practitioner. He has well supplied a want, for no such book existed before in our language."—*American Medical Journal.*

PENNSYLVANIA HOSPITAL REPORTS.

Edited by a Committee of the Hospital Staff. Prof. J. M. Da Costa, M. D., and William Hunt, M. D. Volumes 1 and 2, each volume containing upwards of Twenty Original Articles by former and present Members of the Staff, now eminent in the profession, with Lithographic and other Illustrations. Price, per volume - - $2 00

"These Reports have been so favorably received on both sides of the Atlantic, that it is hardly necessary to speak for them the universal welcome of which they are deserving. The papers are all valuable contributions to the literature of medicine, reflecting great credit upon their authors. The work is one of which the Pennsylvania Hospital may well be proud. It will do much towards elevating the profession of this country."—*American Journal of Obstetrics.*

LEWIN'S TREATMENT OF SYPHILIS.

By Subcutaneous Sublimate Injections. By George Lewin, M. D., Surgeon-in-Chief of the Syphilitic Wards of the Charity Hospital, Berlin. With a Plate Illustrating the Mode and Proper Place of Administering the Injections, and of the Syringe used for the purpose. Price, - - - - - - - - $1 50

"The great number of Cases treated, some fourteen hundred, within a period of four years, in the wards of the Charity Hospital, Berlin, only twenty of which were returned on account of Syphilitic relapses, certainly entitles the method of treatment advocated by this distinguished syphilographer to the attention of all physicians under whose notice syphilitic cases come."

BELLEVUE HOSPITAL MEDICAL COLLEGE.

City of New York.

SESSIONS OF 1877-'78.

The Collegiate Year in this Institution embraces a preliminary Autumnal Term, the Regular Winter Session, and a Spring Session.

The Preliminary Autumnal Term for 1877–1878 will open on Wednesday, September 19, 1877, and continue until the opening of the Regular Session. During this term, instruction, consisting of didactic lectures on special subjects and daily clinical lectures, will be given, as heretofore, by the entire Faculty. Students expecting to attend the Regular Session are strongly recommended to attend the Preliminary Term, but attendance during the latter is not required. During the Preliminary Term clinical and didactic lectures will be given in precisely the same number and order as in the Regular Session.

The Regular Session will commence on Wednesday, October 3, 1877, and end about the 1st of March, 1878.

FACULTY.

ISAAC E. TAYLOR, M. D.,
Emeritus Professor of Obsterics and Diseases of Women, and President of the Faculty.

JAMES R. WOOD, M. D., LL. D.,
Emeritus Prof. of Surgery.

FORDYCE BARKER, M. D.,
Professor of Clinical Midwifery and Diseases of Women.

AUSTIN FLINT, M. D.,
Professor of the Principles and Practice of Medicine and Clinical Medicine.

W. H. VAN BUREN, M. D.,
Professor of Principles and Practice of Surgery, Diseases of Genito-Urinary System, and Clinical Surgery.

LEWIS A. SAYRE, M. D.,
Professor of Orthopedic Surgery, Fractures and Dislocations, and Clinical Surgery.

ALEXANDER B. MOTT, M. D.,
Professor of Clinical and Operative Surgery.

WM. T. LUSK, M. D.,
Professor of Obstetrics and Diseases of Women and Children, and Clinical Midwifery.

EDMUND R. PEASLEE, M. D. LL. D.
Professor of Gynæcology.

WILLIAM M. POLK, M. D.,
Professor of Materia Medica and Therapeutics, and Clinical Medicine.

AUSTIN FLINT, Jr., M. D.,
Professor of Physiology and Physiological Anatomy, and Secretary of the Faculty.

JOSEPH D. BRYANT, M. D.,
Lecturer on General, Descriptive and Surgical Anatomy.

R. OGDEN DOREMUS, M. D., LL. D.
Professor of Chemistry and Toxicology.

EDWARD G. JANEWAY, M. D.,
Professor of Pathological Anatomy and Histology, Diseases of the Nervous System, and Clinical Medicine.

PROFESSORS OF SPECIAL DEPARTMENTS, Etc.

HENRY D. NOYES, M. D.,
Professor of Ophthalmology and Otology.

JOHN P. GRAY, M. D., LL. D.,
Professor of Psychological Medicine and Medical Jurisprudence.

EDWARD L. KEYES, M. D.,
Professor of Dermatology, and adjunct to the Chair of Principles of Surgery.

EDWARD G. JANEWAY, M. D.,
Professor of Practical Anatomy, (Demonstrator of Anatomy.)

LEROY MILTON YALE, M. D.,
Lecturer Adjunct upon Orthopedic Surgery.

A. A. SMITH, M. D.,
Lecturer Adjunct upon Clinical Medicine.

A distinctive feature of the method of instruction in this College is the union of clinical and didactic teaching. All the lectures are given within the Hospital grounds. During the Regular Winter Session, in addition to four didactic lectures on every week day except Saturday, two or three hours are daily alloted to clinical instruction.

The Spring Session consists chiefly of Recitations from Text-books. This term continues from the first of March to the first of June. During this session, daily recitations in all the departments are held by a corps of examiners appointed by the regular Faculty. Regular clinics are also given in the Hospital and College building.

FEES FOR THE REGULAR SESSION.

Fees for Tickets to all the Lectures during the Preliminary and Regular term, including Clinical Lectures,	$140.00
Matriculation Fee,	5.00
Demonstrator's Ticket, (including material for dissection,)	10.00
Graduation Fee,	0.00

FEES FOR THE SPRING SESSION.

Matriculation, (Ticket good for the following Winter),	$ 5.00
Recitations, Clinics and Lectures,	35.00
Dissection, (Ticket good for the following Winter,)	10.00

☞Students who have attended two full Winter Courses of lectures may be examined at the end of the second course upon Materia Medica, Physiology, Anatomy and Chemistry, and if successful, they will be examined at the end of their third course upon Practice of Medicine, Surgery and Obstetrics only.

For the Annual Circular and Catalogue, giving regulations for graduation and other information, address Prof. Austin Flint Jr., Secretary, Bellevue Hospital Medical College.

THE BOSTON
Medical and Surgical Journal.

ESTABLISHED 1828.--PUBLISHED WEEKLY.

The *Boston Medical and Surgical Journal* completes its Fiftieth Year with unusually bright prospects. The circulation having increased under its present management, efforts will be made to adapt it to its increased sphere of usefulness. Attention is called to certain changes which it has been found expedient to introduce during the coming year, and which, it is thought, will specially commend the *Journal* to the practical physician and surgeon.

Arrangements have been made to obtain a supply of clinical material in the shape of lectures and hospital reports from Boston, New York, Philadelphia, and Chicago. The clinics of the most prominent men in these cities will be selected for this purpose.

Several new departments are to be introduced in the Weekly Reports on the Progress of Medicine, including Orthopædic Surgery, Gynæcology, Venereal Diseases, Dental Surgery, Forensic Medicine, Military Surgery, etc.

The correspondence of the *Journal* has been placed upon a secure and permanent footing, able writers having been selected to discuss subjects of medical interest at all important centers. Reports of local medical societies are secured from all parts of New England; all national societies are also carefully reported.

The editorial management will be under the control of Dr. J. Collins Warren, assisted by Dr. A. L. Mason, Dr. George B. Shattuck, and Dr. C. F. Folsom. It will still be the aim of the staff to make the editorial articles equal in value to those of the best weekly medical journals. Care will be taken to supply the latest and most interesting items of medical news.

As this journal endeavors to represent the practice of the country districts as well as of cities, contributions from both sources will be gladly received, and the interests of all will be supported with the impartiality to be shown only by a journal independent of any school or faction.

The following articles will appear early in the year:

A Lecture on the Antiseptic Treatment of Wounds. By Professor Henry J. Bigelow.

A series of Lectures on Clinical Surgery. By Professor David W. Cheever.

A Lecture embodying new views in the diagnosis of Ovarian Cysts. By Professor Danforth, of Chicago.

Contributions from the Dermatological Clinic of Professor James C. White.

Clinical Lectures on Diseases of the Larynx. By Dr. F. I. Knight.

Contributions from the Army Medical Museum. By Dr. George A. Otis, U. S. A.

Contributions to Orthopædic Surgery. By Dr. Buckminster Brown.

Clinical Lectures by prominent teachers in New York and Philadelphia.

Specimen Copies sent on application.

TERMS.—Five Dollars a year, payable in advance; single numbers, fifteen cents. *Postage in all cases is paid by the Publishers.* Remittances may be made by draft, money order, or registered letter to H. O. Houghton and Company, Riverside Press, Cambridge, Mass.

PUBLISHED BY

H. O. HOUGHTON & COMPANY, 1 Somerset St., Boston;
HURD & HOUGHTON, 13 Astor Place, New York.

T. & E. CATLIN,

RETAIL DRUGGISTS,

S. E. Cor. 6th and Washington Ave.,

ST. LOUIS,

Keep on hand a Complete Stock of

PURE DRUGS

—AND—

PHARMACEUTICAL PREPARATIONS,

AND PAY

SPECIAL ATTENTION TO THE

PRESCRIPTION TRADE.

Index to Advertisements.

	PAGE.
RABITEAU & CO., Physioians' Supply Depot	1
ALOE & HERNSTEIN, Surgical Instruments and Physicians' Supplies	2
TROMMER EXTRACT OF MALT CO	3 & 4
FOUGERA, E	5, 6, 9, 23, 24
THE ST. L. BOOK AND NEWS CO	7
HIGGINS, R. M., Animal Vaccine Virus	10
MACKWITZ, W., Engraver	10
CHAS. SCHLEIFFARTH, Anatomical Mechanicia	10
TILDEN & CO., Extract of Malt and its Combinations	11
LINDSAY & BLAKISTON, Medical Books	12, 13, 14, 15
BELLEVUE HOSPITAL MEDICAL COLLEGE	16
BOSTON MEDICAL AND SURGICAL JOURNAL	17
GARRATT & CO., Constant Electric Disks	18
SPACKLER & CO., Surgical, Dental and Orthopædical Instruments	18
CASWELL, HAZZARD & CO., Beef Tonic	22
T. & E. CATLIN, Retail Druggists	20
PRATICES FOR SALE	20
COLDEN, T., Colden's Liebig's Extabct of Beef	21
J. CRAWSHAW & SON, Carpets	21
LANDRUM & LITCHFIELD, Iron and Alum Mass	25
VIRGINIA MEDICAL MONTHLY	26
ST. LOUIS MEDICAL AND SURGICAL JOURNAL	27
McKESSON & ROBBINS	30, 31, 32, 33

DR. GARRATT'S CONSTANT ELECTRIC DISKS.

That any person may apply and wear with comfort—for relief of local *Pains* and *Weakness*, for old Rheumatic and Neuralgic pains, Coldness and Stiffness. It is also remarkable for its constant power to help Weak Lungs, Heart, Stomach, Kidneys, Sluggish Liver, Lame Back and other ills.

While worn, by night or day, this flexible pad or belt, self-applies a fine kind of constant galvanism that wonderfully cures. "For the price and purpose it has no equal." So say physicians, druggists, and those who are using this improved electric. Large Disk, $2 50; Long Disks or Belt, to go around the body, $3 50; Extra Long, $5.00. Can be sent by mail on receipt of price by GARRATT & CO., 6 Hamilton Place, Boston, Massachusetts

H. SPACKLER,

Manufacturer of

Surgical, Dental and Orthopedical Instruments,

Trusses, Supporters, Shoulder Braces,

ELASTIC HOSE, SUSPENSORY BANDAGES, &c.,

No. 715 Pine Street, ST. LOUIS, MO.

Refer to the Medical and Surgical Profession of St. Louis.

LACLEDE MUTUAL

FIRE INSURANCE COMPANY,

Of ST. LOUIS.

Chartered January 14, 1860.

212 N. Third Street, first Building South of Post Office.

J. C. BURY, Jr., Secretary. R. WARD POWELL, Ass't Secretary.

R. W. POWELL, President. JOS. O'NEIL, Vice-President.

E. SCHEFFER,

APOTHECARY AND CHEMIST,

LOUISVILLE, KENTUCKY.

Manufactures by his improved method **SACCHARATED PEPSIN**, which has proven its superiority over other Pepsins by its greater strength, its stability and uniformity and by its almost entire tastelessness.

DRY PEPSIN, concentrated, of which one grain digests from 125 to 150 grains of coagulated albumen, particularly recommended to manufacturers. Premiums were awarded to the above preparations at the

International Exposition at Vienna, in 1873, and the Centennial Exposition in Philadelphia.

R. A. ROBINSON & CO., Wholesale Agents,

Louisville, Kentucky.

Saint Louis

Medical and Surgical Journal.

Published Monthly.

Devoted to the Practical and Scientific Interests of the Medical Profession.

Edited by Thos. F. Rumbold, M. D., and Hiram Christopher, M. D.

THE JOURNAL WILL CONTAIN:

1st. Original Contributions and Translations.
2nd. Clinical Reports from Hospitals and Private Practice.
3rd. Reports of Medical Societies, and Notes of Medical Progress at home and abroad.
4th. Reviews and Notices of Recent Publications, together with Miscellaneous Intelligence of special interest to the Profession.

Terms, Three Dollars per annum IN ADVANCE, postage free.

$1.50 for six months; $1.00 for four months.
Address all Communications and Remittances to

THOS. F. RUMBOLD, M. D.,
No. 1225 Washington Avenue, St. Louis, Mo.

Starling Medical College,

COLUMBUS, OHIO.

The Thirty-first Annual Session of Starling Medical College, will begin Thursday, October 4th, 1877, and continue until March 1st, 1878. The preliminary course will begin September 4th, and continue four weeks. The College Building is not surpassed in beauty and convenience and is well furnished with the requisites for thorough instruction, including Laboratory, Anatomical Room, Museum, Library, Reading Room, Microscopes, Instruments, Charts, etc.

SAINT FRANCIS HOSPITAL,

Of Starling Medical College, under the same roof, is connected with the Lecture Rooms, and Amphitheatre, and furnishes abundant material for Clinical instruction.
Three Clinics will be given weekly during the term, including the Preliminary course.
Anatomical material abundant.

FEES:

Matriculation,	$ 5.00
General Ticket,	40.00
Demonstrator's Ticket,	5.00
Graduation Fee,	25.00

Circulars now ready for distribution.
Address FRANCIS CARTER, M. D., Dean., or
STARLING LOVING, M. D., Secretary.

FOR SALE.

A rare chance for a Good Physician. A valuable property and good practice for sale, located in the city of Shelbyville, Shelby Co., Mo. Price $2,000—one-half down, balance in payments to suit. Address as above
G. L. SMITH, M.D., or PHIL DIMMITT, M.D.

A GOOD PHYSICIAN

Can obtain a No. 1 location for the Practice of Medicine in the country by corresponding with **L. A. WILSON, M. D.,**
NEWBURY, Izard Co., Ark

TESTIMONIALS FROM HIGH AUTHORITIES.

Opinions of Leading Physicians:

"Colden's Liebig's Liquid Extract of Beef and Tonic Invigorator is a very agreeable article of diet, and particularly useful when tonics are required, being tolerated when other forms of animal food are rejected. In Diphtheria, Typhoid Fever and every depressing disease, its use will be attended with great advantage. We have prescribed it with success and believe it to be a most valuable medicine."

THOS. KENNARD, M. D., St. Louis. L. Ch. BOISLINIERE, M. D., St. Louis.
Drs. S. L. A. J. C. NIDELET, " A. P. LANGFORD, M. D., "
J. C. YARNALL, M. D., " Wm. JOHNSTON, M. D., "
W. G. MOORE, M. D., " J. H. LESLIE, M. D., "

"I have used with flattering results, this remedy, as a food in a variety of cases—notably in cases of Gastric Irritability, and such acute inflammatory conditions of the Gastric Mucous Membrane." S. H. FRAZER, M. D., St Louis.

"I think the formula is good." E. H. GREGORY, M. D. "

"I believe Colden's Liebig's Extract of Beef to be very beneficial in Debility Loss of Appetite, etc." A. D. WILLIAMS, M. D., St. Louis.

Other Eminent Physicians' Testimonials:

"Incipient cases of Consumption have come under my observation that have been cured by its use." ERASMUS WILSON, M. D., F. R. S., London, Eng.

"Health and vigor of youth is conveyed to the debilitated by this remedy."
ARTHUR HILL HASSELL, M. D., F. R. S.,
President of the Analytical Association, London, Eng.

"I am using a good deal of Colden's Liebig's Liquid Extract of Beef in my practice, and have every reason to be satisfied with it. In pregnant women it has been retained while every other article of diet was rejected."
JAMES A. SEWELL, A. M., M. D., Dean of the Med. Fac. Naval University Quebec.

"Is one of the most efficient preparations I have ever met with, and I am satisfied it has been the means of saving life when no other medicine could do so."
R. S. STEUART, President Maryland Hospital, Baltimore.

"One of the most reliable tonics in use."
J. J. CALDWELL, M. D., Baltimore.

Highly Recommended by

W. E. Scott, M. D., Professor of Anatomy, McGill University, Attending Physician Montreal General Hospital, and President of the College of Physicians and Surgeons, Canada East; Dr. Wm. F. Stenart, Marine Hospital, Port of Baltimore; Edward Jennings, M. D., Surgeon Provincial City Hospital; Wm. J. Almon, M. D., President Medical College; W. N. Wickwire, M. D., Dominion Health Office; W. H. Wicks, M. D., Hon. D. McNeil Parker, M. D., Edward Farrell, M. D., Archibald Lawson, M. D., R. S. Black, M. D. Arthur Moren, M. D., John A. Lewis, M. D., T. Trenaman, M. D., all of Halifax, N. S. And many others.

☞This important fact must be remembered: There are many Beef Extracts in solid form, but they only act as nutritives, whilst the Liquid Extract combines many other important qualities that make it at the same time a nutritive, tonic, stimulant and alterative.

This remedy is put up in pint bottles, requires no preparation, (like the Solid Extract); and is, moreover, pleasant to take.

Samples free at

DESHLER BEESON, Druggist,
600 Chestnut St., St. Louis, Mo

Sold by all Druggists.

T. COLDEN, Proprietor, Baltimore, Md.

JOSEPH CRAWSHAW. JOSEPH CRAWSHAW, Jr.

J. CRAWSHAW & SON,

DEALERS IN

English & American Carpets,

OIL CLOTH AND LINOLEUM.

No. 811, Franklin Avenue, ST. LOUIS, MO.

LINOLEUM is the Best Office Carpet Made.

FOOD IS THE BEST TONIC.

MENSMAN'S

PEPTONIZED

BEEF TONIC.

The great necessity for a fluid food that would possess ALL THE ELEMENTS NECESSARY FOR THE SUPPORT OF THE SYSTEM, having been long felt by the medical profession, we call attention to this preparation, containing the *entire nutritious properties* of the the muscular fibre, blood, bone, and brain of a healthy bullock, dissolved and semi-digested by aid of heat and pepsin, and preserved by spirit; thus constituting a most perfect nutritive, reconstructive tonic.

It is not a mere stimulant, like the now fashionable extracts of beef, but contains blood-making, force-generating, and life-sustaining properties, pre-eminently calculated to support the system under the exhausting and wasting process of fevers and other acute diseases, and to rebuild and recruit the tissues and forces, whether lost in the destructive march of such affections, or induced by overwork, general debility, or the more tedious forms of chronic disease.

It is friendly and healthful to the most delicate stomachs, and where there is a fair remnant to build on, will reconstruct the most shattered and enfeebled constitution. It is entirely free from any drug.

It is prepared after a thoroughly tested and scientific method. Dispensed in 16oz. bottles, retail at $1.50 each.

PROPRIETORS,

CASWELL, HAZZARD & CO.,

DRUGGISTS AND CHEMISTS,

Fifth Avenue, cor. 24th Street;

and Sixth Avenue, cor. 39th Street,

NEW YORK.

Boudault's Pepsine

And Wine, Elixir, Syrup, Pills and Lozonges of Pepsine.

Since the introduction of Pepsine by Boudault in 1854, **Boudault's Pepsine has been and is still considered the most reliable,** as is attested by the awards it has received at the Exhibitions of 1867, 1868, 1872, 1873, and *in 1876 at the Centennial Exposition at Philadelphia.* Careful tests will enable any one to satisfy himself that *Boudault's Pepsine has a digestive power at least double* that of the best Pepsines in the market, and that it is really the cheapest.

VIENNA, 1873.

Medal of Merit.

It is sold in 1 oz., 8 oz, and 16 oz. bottles. Beware of so-called French Pepsines bearing fictitious names. Ask for and take only **Boudault's.**

PHILA. 1876.

Medal of Merit.

E. FOUGERA & CO., New York, Agents.

TAMAR INDIEN

A laxative, refreshing, and medicated Fruit Lozenge, agreeable to take, and never causing irritation. Its physiological action assures the immediate relief and effectual cure of CONSTIPATION CEREBRAL CONGESTION, HEADACHE, INDIGESTION, BILE, HEMORRHOIDS, etc., etc., by augmenting the peristaltic movement of the intestines without producing undue secretion of the liquids. Unlike pills and the usual purgatives, it does not predispose to intestinal sluggishness, and the same dose always produces the same effect, that is to say, never needs increasing. These properties render "Tamar" invaluable to the weak and debilitated, and especially to ladies previous and subsequent to their accouchment. It is recommended by the most eminent Physicians of Paris; notably Drs. BERLIN and TARDIEU, who prescribe it constantly for the above complaints, and with most marked success.

Prepared by **E. GRILLON,** Pharmacien de 1ere classe, 27 Rue Bambuteau, Paris. To be had of all respectable Chemists throughout the world.

DUREL'S SYRUP

—OF—

TAR AND IRON.

Prepared by DUREL, Pharmacist, Paris.

The combination is one preparation of the stimulating and balsamic properties of Tar with the tonic properties of a salt of iron is a desideratum which has at last been attained in this preparation. The indications for such a remedy are many, but it has been found especially useful in CHLOROSIS, BRONCHIAL CATARRH, CATARRH OF THE BLADDER, CHRONIC UTERINE DISCHARGES, depending upon an enfeebled or relaxed state of the system.

It is sold by Chemists generally, and by?

E. FOUGERA & CO., Agents, New York.

LEBAIGUE'S

DIALYSED IRON,

OR

PURE PEROXIDE OF IRON,

IN SOLUTION, WITHOUT THE AID OF ACIDS OR OTHER SOLVENTS.

It is nearly tasteless, does not blacken the teeth, is very readily absorbed, will not constipate, nor cause any disturbance of the digestive apparatus, and is tolerated by persons who could not support any other preparation of iron It is offered in the form of a **solution,** which is generally preferred; or of an **elixir,** when a slight stimulant is desired.

BLANCARD'S PILLS

OF UNCHANGEABLE IODIDE OF IRON.

Blancard's Pills of Iodide of Iron are so scrupulously prepared, and so well made, that none other have acquired a so well deserved favor among physicians and pharmaceutists. Each pill, containing one grain of proto-iodide of iron, is covered with finely pulverised iron, and covered with balsam of tolu. Dose, two to six pills a day. The genuine have a *reactive silver seal* attached to the lower part of the cork, and a green label on the wrapper, bearing the fac-simile of the signature of Blancard *Pharmacien, No. 40 Rue Bonaparte, Paris.* without which none are genuine.

BEWARE OF IMITATIONS.

DOCTOR GIBERT'S

DEPURATORY SYRUP AND DRAGEES,

Of Iodised Deuto-Iodide of Mercury.

These preparations have been approved by the Academy of Medicine of Paris, and have been thoroughly tested in the hospitals of Paris in the treatment of *Syphilitic, Scrofulous* and other affections requiring the use of iodised remedies.

They are recommended for the utmost accuracy of composition, and their perfect preservation.

Prepared by VAUQUELIN-DESLAURIERS, Chemist, Paris.

E. FOUGERA & CO., Agents, New York.

NATURE'S REMEDY.

THE SEVEN SPRINGS

Iron and Alum Mass.

In the "salts" or solids of "Mineral Water," obtained by evaporation, from the waters of a group of seven springs, in Washington county, Virginia. Notwithstanding these springs are less than 30 yards apart, no two of them possess the same medicinal properties. The mass obtained from the reduction of these waters, as analysed by Prof. J. W. Mallet, of the University of Virginia, contains *nineteen* distinct, well proportioned alkaline properties, the combination of which seem to possess unusual therapeutic virtues—as the physicians, as well as the thousands of non-professionals have learned by actual experience.

Our "pamphlet" contains full particulars, with analysis, mode of preparing, uses, application, etc., which will be mailed free to any one sending their name and P. O. address.

As may be inferred from the nature and character of this remedy, it is neither a *patent* nor *proprietary* preparation, but as there are several other preparations of similar character now being manufactured in Virginia, we would advise all who order, to mention the "Seven Springs Iron and Alum Mass," prepard by Landrum & Litchfield.

The following extracts of letters from eminent physicians, who have used this Mass, will serve to show the estimation placed upon it as a therapeutic remedy. We could produce many hundreds if it were necessary and had sufficient space:

"I have found no one single remedy to yield such satisfactory results in the treatment of *Chronic Gastric Catarrh*, as the "Iron and Alum Mass." In *Chronic Diarrhœa*, in *Anæmia*, *Chlorosis*, and for *Chronic Eczema*, I deem it invaluable, associated with appropriate topical treatment. GEO. T. HARRISON, M. D., 221 W. 23rd St., N. Y.

"In an interesting case of *Menorrhagia*, accompanied with symptoms of *General Debility*, *Dyspepsia*, *Copious Uterine Leucorrhœa* and *Retroversion of the Womb*, *etc.*, the experiment was sufficient to satisfy me of the value of the "Iron and Alum Mass," to relieve this class of female diseases, far superior to the Dialysed Iron, now so greatly lauded as a tonic. FREDERICK HORNER, JR., M. D., Surg. U. S. N.

"I have been using the "Iron and Alum Mass" in several very important cases. In the treatment of *Hemorrhœa*, *Chronic inflammation of neck of bladder*, Ulcerations of the *Mouth* and *Throat*, and Dyspepsia, it seems to act with specific virtue.
E. O. GREGSBY, M. D. De View, Ark.

I consider the "Iron and Alum Mass" a very valuable remedy for all diseases dependent upon deranged conditions of the secretions of the liver and kidneys.
CYRUS DAGGETT, M. D., Fincastle, Va.

☞The "Iron and Alum Mass" is for sale by nearly all respectable druggists. Retail at $1.00 per bottle, or six bottles for $5.00. Sent by mail on recipt of price, postpaid. Orders sent to us, or any of the following wholesale druggists, will receive prompt attention.
March, 1878.

LANDRUM & LITCHFIELD, Abingdon, Va.

WHOLESALE AND RETAIL DEALERS:

Purcell, Ladd & Co.,	Richmond Va.	Neely & Pybas	Jackson, Tenn.
M. A. & C. A. Sancos	Norfolk, Va.	Blair & Osborne	Columbus, Miss.
Canby, Gilpin & Co	Baltimore, Md.	Davenport & Smith	Americus, Ga.
Caswell, Hazard & Co	New York City	J. J. & W. H. Tobin	Austin, Texas.
John W. Drew	Washington, D. C.	J. H. Alexander	Augusta, Ga.
Faulkner & Craighill	Lynchburg, Va.	Meyer Bros. & Co	St. Louis, Mo.
W. A. Strothers	" "	R. A. Robinson & Co	Louisville, Ky.
Lyons & McCampbell	Knoxville, Tenn.	R. W. Powers & Co	Richmond, Va.
DeMoville & Co	Nashville, Tenn.	Lincoln & Welch	Little Rock, Ark.
A. M. Newsum	Memphis, Tenn.	Hughes & Naulty	" "
G. W. Jones & Co	" "	Berry, DeMoville & Co	Nashville, Tenn.
I. L. Lyons	New Orleans, La.	Geo. W. May & Co	Staunton, Va.

Irvine, Garside & Alexander, Montgomery, Ala.

Virginia Medical Monthly,

PUBLISHED IN RICHMOND, VA.

CIRCULATES IN EVERY SECTION OF THE UNITED STATES.

Yearly Subscription, $3. Single Copy, Thirty Cents.

Each number of the Fourth Annual Volume, to begin April, 1878, will contain 80 or more pages.

Each Volume begins in April, and is Thoroughly Indexed

LANDON B. EDWARDS, M. D., Editor and Proprietor,

Member Va. State Board of Health, Rec'd'g Sec'y and Treasurer Med. Society of Va.; formerly Lecturer on Anatomy and Mat. Med., College of Va., etc.

The *Monthly* has all the departments of medical journals. It is independent of every institution or corporation. Its contributors are among the leaders of medical opinion in America. Its articles are practical. Its translations from leading journals of Europe, etc., note advances made in foreign countries. It is establishing correspondents and clinical reporters in the prominent medical centers. The following are only a few of the complimentary

OPINIONS OF THE MEDICAL PRESS.

The *Virginia Medical Monthly* is always fresh, sparkling and fully up with the times. *St. Louis Clinical Record.*

Gives evidence of energy and ability in its editorial management.—*N. Y. Med. Jour.*

Characterized by a high order of contributions, and is commendable for careful and accomplished editorship.—*Sanitarian.*

In every respect worthy of support.—*Richmond and Louisville Med. Jour.*

Worthy of the highest commendation.—*N. O. Med. & Surg. Jour.*

Evinces an industry and taste on the part of the editor which commend it most favorably to the profession everywhere.—*Amer. Prac.*

Highly creditable to its editor and proprietor.—*Atlanta Med. & Surg. Jour.*

Ranks among its contributors some very able men.—*Charleston Med. Jour. & Rev.*

In proof of the general acceptability of the journal at home, it may be stated that the *Transactions of the Medical Society of Virginia* of 1874 and 1875; the *Proceedings of the Association of Medical Officers of the Confederate States Army and Navy*, 1875; and the *Proceedilgs of the Eastern (North Carolina) Medical Association*, December, 1875, have all been published by official vote (without solicitation on the part of the editor), in connection with the *Monthly.*

The *Monthly* has no club rates; but to any one who sends us before April, 1878, four *new* subscribers, with $12 in Postoffice money order or registered letter, we will furnish the journal free for one year. The *Monthly* makes quite regular reports of the Proceedings of the Mobile Medical Society; the Nashville Medical Society; the Richmond Academy of Medicine, etc.

In subscribing, always state with which number to begin. It is useless waste of stamps or postal cards to send to us for specimen copies unless each order is accompanied by 30 cents.

Address, LANDON B. EDWARDS, M. D.,
RICHMOND, VA.

Original Contributions are solicited from every quarter; but they must be in hand by the 1st of the month preceding the issue in which they are expected to appear.

THE ST. LOUIS

Medical and Surgical Journal.

ESTABLISHED IN 1843.---PUBLISHED MONTHLY.

Thos. F. Rumbold, M. D., Editor and Proprietor; Hiram Christopher, M. D., Associate Editor.

Each Number will Contain 80 Pages, Making a Volume of Nearly 1,000 Pages.

The St. Louis Medical and Surgical Journal commences its *Thirty-Fourth Volume* with an increase of 24 pages. As it is now printed in smaller type, the increase in its pages nearly *double its former contents*. This has had the effect to greatly increase its popularity and, as a consequence, increase its circulation.

The Journal is to be conducted in the interests of the profession, and we look to it for that encouragement and assistance so necessary to success, and to the advancement of the Science and Art of Medicine and Surgery.

Although it is the Pioneer of the Medical Journals of the West, yet its present enlargement gives good proof that it is not too old, nor too set in its way to keep pace with the progress of the age.

THE JOURNAL WILL CONTAIN:

1. Original Contributions. **2.** Translations from the German, French and Spanish. **3.** Reports of Medical Societies. **4.** Clinical Reports from Private Practice. **5.** Clinical Reports from Hospital Practice. **7.** Selections from Current Medical and Scientific Literature. **7.** Editorial. **8.** Obituary Notices of Prominent Men. **9.** Reviews of Medical and Scientific Books. **10.** Notices of Books and Pamphlet Received. **11.** News Items. **12.** Meteorological Observations taken in St. Louis. **13.** Mortality Report of the City of St. Louis. **14.** Comparative Mortality Rates of the six largest cities in the United States.

The Translations from the German, French and Spanish Medical and Scientific Journals, will be from those articles which contain the *advance* views of the Medical and Scientific men living in those nations.

The Journal will contain the full Report of the Proceedings of the St. Louis Medical Society, and a Summary of all the Societies in Missouri, and many that are held in Illinois and other States, thus placing before its readers the latest views and experiences in all the Departments of Medicine, Practical as well as Theoretical.

The Journal will, in all respects, be maintained in the high and honorable position it has long held. No personalities shall ever soil its pages: when discussions cannot be carried on without these, space in its columns will be declined.

Contribution of Original Articles on both Medical and Scientific subjects are invited from all parts of the country.

Articles on the following subjects written by well known writers will appear in the present volume:

Contributions on Fractures.
Contributions on Orthopedic Surgery.
Contributions on Syphilis.
Contributions on Lithotomy.
Contributions on Ophthalmology.
Contributions on Urethral Stricture.
Contributions on the Present State of Pathology of Phthisis Pulmonalis.
Genesis. A Series of Papers.
Diseases of the Kidney.
Medical Experts as Witnesses.
The Treatment of Nasal, Pharyngeal, Aural, Laryngeal and Bronchial Catarrh.

From the above table it will be seen that it is not the intention of the editors to confine The Journal to subjects relating to Medicine and Surgery alone; subjects collateral to these will receive attention, and such are invited from the profession. The departments of science are so closely connected as to make it almost impossible for a Physician or Surgeon to be proficient as such, without considerable knowledge of kindred branches.

TERMS:—Three Dollars a year, payable in Advance. Single Numbers Thirty Cents. Postage prepaid in all cases.

A. M. LESLIE & CO.

319 N. FIFTH STREET,

ST. LOUIS, MO.

Manufacturers and dealers in every article used by

DENTISTS AND SURGEONS,

Goods of all makes supplied at manufacturers' rates.

THE LATEST CHAIRS.

ALL VARIETIES OF THE

BURRING ENGINE,

A full supply of the best of all articles used by the profession.

The Lowest Prices. The Best Goods. Prompt attention to orders guaranteed.

Send for New Illustrated Catalogue.

Address

A. M. LESLIE & CO.

319 North Fifth Street,

ST. LOUIS. MO.

MISSOURI DENTAL COLLEGE

SESSION OF 1877-8.

The Regular Course of Lectures in the MISSOURI DENTAL COLLEGE will commence on MONDAY, OCT. 8TH, 1877, and continue five months from the date of beginning.

Arrangements have been made to provide for a three years graded course (making no additional charge for the third term, two years fees having been paid). This graded system of studies will relieve students from the over-crowding of Lectures unavoidable under the ordinary system, giving them more time to pursue the fundamental sciences of Chemistry, Anatomy and Physiology, and help them to a more rational understanding and more thorough knowledge of the practical branches; hence the Faculty would earnestly recommend all students, if possible, to avail themselves of this offer, and select the *three term* curriculum, which, by the action of the Missouri State Dental Association, is to be the required curriculum of the School, from and after this session.

Arrangements have also been made by which the advantages for Clinical and Hospital practice have been greatly increased. The MISSOURI DENTAL COLLEGE now offers to its students facilities in this respect unsurpassed by any College in this country.

☞For announcements, or any desired information, address

W. H. EAMES, Dean,
1224 Washington Ave., ST. LOUIS.

FACULTY.

ISAIAH FORBS, D. D. S.—Emeritus Professor of Institutes of Dental Science.

W. H. EAMES, D. D. S.—Professor of Institutes of Dental Science.

J. J. McDOWELL, M. D.—Professor of Anatomy.

A. LITTON, M. D.—Professor of Chemistry and Pharmacy.

C. BAUMGARTEN, M. D.—Professor of Physiology.

J. S. B. ALLEYNE, M. D.—Professor of Materia Medica, Therapeutics and Diseases of Children.

E. H. GREGORY, M. D.—Professor of the Principles and Practice of Surgery and Clinical Surgery.

HOMER JUDD, M. D., D. D. S.—Professor of Surgical and Operative Dentistry.

H. H. KEITH, D. D. S.—Professor of Mechanical Dentistry.

DR. G. V. BLACK.—Lecturer on Histology and Microscopy.

H. H. MUDD, M. D.—Demonstrator of Anatomy.

JNO. G. HARPER, D. D. S.—Demonstrator of Operative and Mechanical Dentistry.

W. H. EAMES, D. D. S.—Dean of Faculty, 1224 Washington Ave.

PHOSPHORUS COMPOUNDS

AND OTHER NEW ADDITIONS TO

McKESSON & ROBBINS' GELATINE-COATED PILLS.

We submit below, in our Gelatine-Coated Pills, modifications of some Phosphorus combinations, which have been introduced by Messrs. Kirby & Co., of London, and are largely used and appreciated by the profession in England.

The Phosphorus in our pills is always presented in the free state, and perfectly sub-divided, thus insuring safety and absence of any cause of irritation to the stomach.

	Bottles 100 pills	Bottles 500 pills
PHOSPHORUS, DIGITALIS & EXT. HYOSCYAMUS (Phosphorus, 1-50 gr. / Pulv. Digitalis, 1 gr. / Ext. Hyoscyami, 1 gr.)	1 25	6 00
PHOSPHORUS AND EXTRACT ACONITE. (Phosphorus, 1-50 gr. / Ext. Aconiti Alc., 1-16 gr.)	1 25	6 00
PHOSPHORUS AND EXT. CANNAB. INDIC. (Phosphorus, 1-50 gr. / Ext. Cannab. Ind., 1-4 gr.)	1 25	6 00
PHOSPHORUS, EXT. NUX VOM. & EXT. ALOES. (Phosphorus, 1-50 gr. / Ext. Nucis Vomicæ, 1-4 gr. / Ext. Aloes Soc., 1-2 gr.)	1 25	6 00
PHOSPHORUS, EXT. NUX VOM. & CARB. IRON. (Phosphorus, 1-50 gr. / Ext. Nucis Vomicæ, 1-4 gr. / Ferri Carb., 1 gr.)	1 25	6 00
PHOSPHORUS, IRON AND ALOES. (Phosphorus, 1-50 gr. / Ferri Sulph. Exsic., 1 1-2 grs. / Ext. Aloes Soc., 1 gr.)	1 25	6 00
PHOSPHORUS, MORPHIA AND VAL. ZINC. (Phosphorus, 1-50 gr. / Morphiæ Sulph., 1-12 gr. / Zinci Valerianas, 1 gr.)	1 75	8 50
PHOSPHORUS, NUX VOMICA & CANTHARIDES. (Phosphorus, 1-50 gr. / Pulv. Nucis Vomicæ, 1 gr. / Tinct. Canthar. Conc., 1 minim.)	1 25	6 00
PHOSPHORUS AND QUININE. (Phosphorus, 1-50 gr. / Quiniæ Sulph., 1 gr.)	2 50	12 25
PHOSPHORUS, QUINIA, IRON AND STRYCHNIA. (Phosphorus, 1-100 gr. Ferri Redact., 1 gr. / Quiniæ Sulph., 1 gr. Strychniæ, 1-60 gr.)	2 75	13 50
PHOSPHORUS AND STRYCHNIA. (Phosphorus, 1-50 gr. / Strychniæ, 1-60 gr.)	1 25	6 00
PHOSPHORUS, SULPH. ZINC AND LUPULIN. (Phosphorus, 1-50 gr. / Zinci Sulphas, 1 gr. / Lupulina, 1 gr.)	1 25	6 00
ALOES AND MASTIC (see Lady Webster's).		
ALTERATIVE. (Pulv. Opii, 1-8 gr. / Pulv. Ipecac., 1-8 gr. / Pil. Hydrarg., 1 gr.)	75	3 50
ASSAFŒTIDA COMPOUND. (Assafœtida, 2 grs. / Ferri Sulph. Exsic., 1 gr.)	50	2 25
ANTI-BILIOUS. (Ext. Coloc. Comp., 2 1-2 grs. / Res. Podophylli, 1-4 gr.)	75	3 50
CALOMEL COMPOUND. (Antim. Sulphuretum, 1-2 gr. / Hydrarg. Chlor. Mite, 1-2 gr. / Resina Guaiaci, 1 gr.)	60	2 75
HYOSCYAMINE (RESINOID). 1-4 gr.	1 00	4 75
IODIDE OF IRON AND QUININE (see Quinine and Iodide of Iron).		
MERCURY, CYANIDE, 1-20 gr.	50	2 25
MORPHINE, MURIATE, 1-8 gr.	75	3 50
PLUMMER'S (see Calomel Compound).		
PODOPHYLLIN, COLOC., HENBANE & CALOMEL. (Res. Podophylli, 1-4 gr. / Ext. Col. Comp. Pulv., 1 gr. / Ext. Hyoscyami, 1-4 gr. / Hydrarg. Chlor. Mite, 1 gr.)	1 00	4 75
QUININE AND IODIDE OF IRON. (Quiniæ Sulph., 1-2 gr. / Ferri Iodidum, 1 gr.)	1 50	7 25
QUININE AND CAPSICUM. (Quiniæ Sulph., 1 gr. / Pulv. Capsici, 1-4 gr.)	1 75	8 50
RHUBARB COMPOUND AND CALOMEL. (Pil. Rhei. Comp., 1 1-2 grs. / Hydrarg. Chlor. Mite, 1 gr.)	75	3 50

CALCIUM SULPHIDE, 1-10 gr. ..... $ .75 per 100

In many skin diseases it is strongly indicated, being not only anti-parasitic and anti-herpetic, but also stimulant and tonic.

An eminent physician, who has given much attention to the use of Sulphide of Calcium, cites several very interesting cases of cures of Abscesses, through its medium. In his words: "The Sulphide of Calcium is indicated in Scrofulous and unhealthy sores, and glandular enlargements, in boils appearing in crops, and in carbuncles—in any diathesis with a tendency to abscesses with suppuration."

As a protection against imitations, we would specially caution Physicians to specify **McKesson & Robbins' Gelatine-Coated Pills** on their prescriptions and to see that McKESSON & ROBBINS' are used, as some imitators are offering their pills in the market in the oval or spheroidal shape (introduced by us); and others are offering theirs, *in the round form*, attempting to introdnce their imitations through our previous advertisements.

We regret to announce that our attention has been called to several instances where other pills have been substituted by druggists when ours were desired, and even specified, by the physician. We believe that such instances are rare, but in some cases physicians have notified us of such breach of honor in the druggist.

Physicians, guardians as they are of the lives of their patients, should see to it that their prescriptions are faithfully and scrupulously filled, as the substitution of one article for another may be a matter of life or death. We offer this suggestion **because inferior Pills have been offered,** and the name "GELATINE-COATED," has thereby suffered in the opinion of some.

☞ In reply to many inquiries in regard to the infringements upon our patents, we would say that we have recently **obtained a decree, granting us a perpetual injunction against one of the infringers, and intend to protect all our rights in this matter.**

The NATURE of the COATING of a pill is not the only important consideration, the PILL ITSELF MUST be HONESTLY AND PROPERLY made. The best test of the superiority of both the COATING and CONTENTS of OUR PILLS is the one of submitting them to LIVING SUBJECTS and noting results. **One of the McKesson & Robbins' Gelatine-Coated Pills, placed in the mouth, will be relieved of its coating in less than two minutes.** Physicians in the country would avoid disappointment in results by ordering McKESSON & ROBBINS' PILLS in original bottles of 100 or 500 from their Druggists, or, where remoteness from sources of supply prevents, we will be happy to mail our Pills to any Physician's address upon receipt of list price.

McKESSON & ROBBINS'

PILLS AND GRANULES,

OF THE

U. S. PHARMACOPŒIA & OTHER RELIABLE FORMULÆ.

GELATINE-COATED,

Process and Machinery Patented.

91 & 93 Fulton, 80, 82 & 84 Ann Sts., N. Y.

McKESSON & ROBBINS, NEW YORK · TRADE MARK. · M'F'G. CHEMISTS

The Spheroidal or Capsule shape of McKesson & Robbins' Pills is the best adapted to the throat, and obviates the sickening sensation so universal in swallowing a round Pill.

NEW THERAPEUTICAL NOTES.

CHARCOAL, WILLOW, ... 5 grs.

The value of pure powdered Willow Charcoal in Dyspepsia, Indigestion and all affections arising from derangements of the stomach, such as Headache, Heartburn, &c., is well known. Its value must necessarily be much increased, since it is, for the first time, presented in a convenient, reliable and unobjectionable form, in our Gelatine-Coated Pills.

IRON, DIALYSED, ... 2 grs.

Made from Merck's scales or plates of Dialysed Iron, and, about 20 times the strength of the Solutions in market.

SALICIN, ... 2½ and 5 grs.

Salicin is becoming more and more favorably known in the treatment of Rheumatic affections, also as a Tonic, Astringent, and Anti-Periodic, and is best exhibited in our Gelatine-Coated Pills. In Acute Rheumatism, Salicin has been found very efficacious, and according to "The Lancet," not less certain, than Quinine is for the Ague. In large doses, it has been claimed to be an absolute specific in Corueitis (suppurative). Price, reduced.

MONOBROMATED CAMPHOR, ... 2 and 3 grs.

Is now being considerably used in treatment of Spermatorrhœa; strongly recommended in cases of Cerebral-Anæmia; used successfully in Infantile Convulsions from teething; Hysteria; Headache from over study or nervousness, and Nymphomania. (Dose, 3 to 4 grs.)

CALCIUM, SULPHIDE, ... 1-10 gr.

Strongly recommended "in cases of Scrofulous and other unhealthy sores, Glandular Enlargement, Boils occuring in crops, &c." In many skin diseases, it is strongly indicated, being not only Anti-parasitic and Anti-herpetic, but also stimulant and tonic.

An eminent physician, who has given much attention to the use of Sulphide of Calcium and cites several very interesting cases of cures of Abscesses, through its medium. In his words: "The Sulphide of Calcium is indicated in Scrofulous and unhealthy sores and Glandular Enlargements, in Boils appearing in crops, and in carbuncles—in any diathesis with a tendency to Abscesses with suppuration."

CERIUM, OXALATE, ... 1 gr.

Used as a remedy in the sick stomach of pregnant women, and in the vomiting of pregnancy, as well as in Phthisis, Hysteria, Pyrosis and Atonic Dyspepsia. (Dose, 1 to 3.)

PHOSPHORUS, ... 1-100, 1-50, 1-30, 1-20, 1-12 gr.

The pure transparent Gelatine we use is in no degree porous, it preserves the Phosphorus perfectly in the free state; while sugar, owing to its crystaline nature, is very porous, and will admit of rapid change in substances, of a delicate character, covered with it. We have the Phosphorus in state of solution in the excipient we employ, this insures a gradual elimination of the Phosphorus in the stomach, thus avoiding the severe irritation that is so often experienced after taking the ordinary Phosphorus Pills, which are prepared by mixing the Phosphorus in substance with the excipient, in which small fragments of Phosphorus often remain. Note remarks by Dr. Squibb, in his paper before Am. Pharm. Ass'n, Sept., '76, in which he states that Phosphorus should never be administered in substance, and if a coating be used, he commends Gelatine.

Many of the most eminent physicians throughout the country, among whom are leading specialists in the treatment of Neurotic diseases, assert that McKesson & Robbins' Phosphorus Pills are the most rational medium yet found for exhibiting Phosphorus.

PHOSPHORUS COMPOUND, McKesson & Robbins' Pills, $\frac{1}{50}$, $\frac{1}{60}$ & $\frac{1}{100}$ gr.

PHOSPHORUS COMPOUND AND IRON, McKesson & Robbins' Pills.

CAUTION!!—SPECIFY McKESSON & ROBBINS'.

McKESSON & ROBBINS' GRANULES.

ACONITIA,	1-60 gr.
ARSENIOUS ACID,	1-50, 1-40, 1-30, 1-20 gr.
ATROPIA,	1-60 gr.
BELLADONNA EXTRACT,	1-4 gr.
CALCIUM, SULPHIDE,	1-10 gr.
CODEIA,	1-16, 1-5 gr.
CORROSIVE SUBLIMATE,	1-40, 1-30, 1-20 gr.
DIGITALIA,	1-60 gr.
MERCURY, BIN-IODIDE,	1-25, 1-16 gr.
MERCURY, PROTO-IODIDE,	1-5, 1-4, 1-2 gr.
MORPHIA, ACETATE,	1-8, 1-4 gr.
MORPHIA, SULPHATE,	1-16, 1-10, 1-8, 1-6, 1-4 gr.
MORPHIA, VALERIANATE	1-8 gr.
PODOPHYLLIN,	1-8, 1-4 gr.
QUINIA,	1-2, 1-4 gr.
STRYCHNIA,	1-60, 1-40, 1-30 gr.
SULPHUR, IODIDE,	1-25, 1-10 gr.
TARTAR EMETIC,	1-100, 1-20, 1-4 gr.
ZINC, PHOSPHIDE,	1-6, 1-4, 1-2 gr.

Physicians have experienced the need of a reliable and more pleasant form for administering these more potent remedies. The want of reliability, as exhibited in the Granules of the market by the varying action following their administration, has caused them to be avoided—and very justly—by most practitioners, who have preferred rather to use solutions, and trust to the custom of dropping, or using a teaspoon to measure their portions, although nearly as uncertain, owing to great difference in the sizes of teaspoons, and the fact that drops vary with the conditions and form of surface, from which they flow.

In our preparations, we have taken special precautions by enforcing our system of checking the weights, and, at large expense, have had our machines for division of the substances so carefully and correctly constructed, as to insure an exactness never before maintained in this class of preparations. We can, therefore, afford assurance to physicians of correct weight and perfect division. Our Granules have been appreciated and are being extensively used by the profession. Be careful and see that "McKesson & Robbins" is on the label.

A physician in St. Louis, who has for some time been using our Pills, prescribed **"Gelatine-Coated Phosphorus Pills, $\frac{1}{100}$ gr." intending to have the McKesson & Robbins Pills** dispensed, but **did not perceive the usual effects** after administering them to the patient. Upon investigation, he found the Pills resembled ours somewhat in external appearance, but on cutting one open, he found it contained **hardly a trace of Phosphorus.** The doctor went to the druggist, who had dispensed the prescription, and found that, not having our Phosphorus Pills in stock, **he had dispensed an imitation;** the druggist claimed that he was warranted in so doing, as the physician had not taken the precaution to put the name **McKesson & Robbins** upon his prescription, although the physician had been in the habit of specifying our pills, and the druggist knew it. We have had our attention called to several cases of this character, regarding the Quinine Pills, Morphia Granules and others, when, on **failing to obtain results,** the physicians have found that they **were being imposed upon by imitations;** this has induced them to write **"McKesson & Robbins' C. C. Pills"** in full upon their prescriptions and add, **"send no others."** We have full lines of our Pills in all of the large, and in most of the small cities, and there is no excuse for substituting imitations.

Price Lists furnished upon application. See list of formulas, last page.

Private Formulas, of 3,000 or more Pills, Made and Coated to Order.

McKESSON & ROBBINS, 91 Fulton Street, New York.

THERAPEUTICAL NOTES ON SOME SPECIALTIES IN McKESSON & ROBBINS' G. C. PILLS.

ERGOTIN PILLS, ... 3 grs.

We manufacture our Ergotin with great care from the best quality of fresh, selected Ergot, and it contains, in the most potent form, all the active constituents of Ergot of Rye, each grain representing 10 grains of Ergot, and each pill being equal to half a teaspoonful of officinal fluid extract. The value of Ergotin, in the place of the crude drug and the fluid preparations, is conceded; and it is being largely administered both in this country and in Europe. It has taken a prominent place in the treatment of Neurotic diseases. Many of our most reliable practitioners, and particularly those of extended experience in Gynæcology, assert that they have never found a preparation of Ergot, in which, by experience, they felt as much confidence as in McKesson & Robbins' Ergotin Pills. The advantages of prescribing it in this form will be readily acknowledged. (Dose, 1 to 3.)

We offer our Ergotin, prepared specially for hypodermic use, in one-ounce bottles.

COCA EXTRACT, ... 1 gr.

McKesson & Robbins' Solid Extract, made from freshly imported leaves, is used in these pills. As the leaves become almost inert with age, a preparation of this nature is necessary to enable the physician to judge correctly of the value of this remedy. Coca Erythroxylon is a South American plant, used by the natives as a substitute for tea, coffee, tobacco, hashish and opium of other countries. It imparts vigor to the muscles as well as to the intellect, and enables the partaker to endure great fatigue with ease. The feeling of exhilaration, accompanying its use, is said not to be followed by any depressing effects.

JABORANDI EXTRACT, ... 3 grs.

Made of McKesson & Robbins' Solid Extract. These pills present a much better and more acceptable form of administering this powerful Diaphoretic and Sialagogue, than any of the liquid preparations. Valuable in Rheumatism and all Syphilitic troubles of long standing. (Dose, 1 to 3.)

PHOSPHIDE ZINC, ... 1-6, 1-4 and 1-2 gr.

The Phosphide of Zinc has been very successfully used by Drs. Hammond (see Dr. H.'s last book), Routh, and other prominent authorities on treatment of brain diseases, all of whom assert its efficacy. It has been used with remarkable results in severe cases of Neuralgia (see paper by Dr. Adolphus, St. L. Med. Jour., XIII. 471). P. Vigier, *Bull. Gen. de Therap.*, states that Phosphide of Zinc is more prompt and reliable in its action than free Phosphorus.

SANDAL WOOD EXTRACT, ... 1 and 2 grs.

These pills contain both the oil and resin existing in Sandal Wood, are believed to be superior to the oil alone, and are more convenient of administration. The Extract is manufactured from the wood, in our laboratory.

SOLIDIFIED COPAIBA, WITH OLEO-RESIN CUBEB PILLS, ... 3 and 5 grs.

We prepare both these ingredients in our own laboratory, with great care, and can assert their superior quality. The value of the Oleo-Resin Cubeb often offered in market is very slight, due to the fact that the largest proportion is powdered Cubeb Berries.

QUININE, SULPHO-CARBOLATE, ... 1, 2 and 3 grs.

This salt of Quinine has been very much used in some of our extreme malarial districts during the past two years. Those, who have tested it very carefully, claim that it possesses a most positive specific action in the treatment of Fever and Ague, and has proved itself eminently superior to the Sulphate of Quinine in all malarial fevers.

PHYSICIANS' POCKET CASES FOR PILLS.

Having received many inquiries for our Gelatine-Coated Pills and Granules put up in a form convenient for practitioners, and, not finding any of the ready-made pocket cases in market desirable, we have devised a number of forms and sizes of our own. The number and variety of the formulas of our Pills, together with their ready solubility have, to a great extent, obviated the necessity of carrying the bulky medicine chest, with its solution and powders.

Circular, with cuts and prices, mailed upon application.

STRANGERS IN ST. LOUIS

SHOULD NOT FAIL TO CALL AT

Barr's Grand Dry Goods Arcade!

For the Exhibition of Dry Goods proposed to be made on and after September 10th, 1877, will be one of the sights to be seen this Fall.

Our Fall Stock will then be full.

Every class of Dry Goods made or unmade will be on sale.

Politeness to all, rich and poor, is a peculiarity of our Establishment.

Our system is the most correct, and insures customers getting the most for the least money.

The vast range of our business can best be shown by the following:

Alphabetical Index to Departments at

WM. BARR & CO.S'

GRAND DRY GOODS ARCADE.

420 & 422 North Fourth St.

And through whole block to 501 & 503 N. Third St.,

ST. LOUIS, MO.

Blankets,	Handkerchiefs,	Quilts,
Corsets,	Ladies' Hosiery,	Ribbons,
Cloaks,	Ladies' Gloves,	Silks,
Curtains,	Laces,	Suitings,
Calicoes,	Linens,	Skirts,
Cloths,	Linings,	Shoes,
Domestics,	Ladies' Underwear,	Suits,
Embroidery,	Millinery,	Shawls,
Flannels,	Mournings,	Trimmings,
Fancy Dress Goods,	Notions,	Upholstery,
Fancy Goods,	Plain Dress Goods,	Velvets,
Gents Furnishing,	Printed Muslin,	White Goods
Ginghams,	Perfumery,	Etc., Etc.

ESTABLISHED 1856.

A. M. LESLIE & CO.,

Manufacturers of and Wholesale and Retail Dealers in

SURGICAL INSTRUMENTS, APPARATUS

BRACES, TRUSSES,

Dental Instruments, Apparatus and Furnishings,

Medical, Surgical and Dental Books, Etc.,

No. 319 NORTH FIFTH STREET,

(IN MERCANTILE LIBRARY BUILDING)

Where they have opened a GREATLY INCREASED Stock of the above articles, which they will sell for Cash as low as the Eastern manufacturers.

Parties ordering may rely on getting suited, or the goods may be returned.

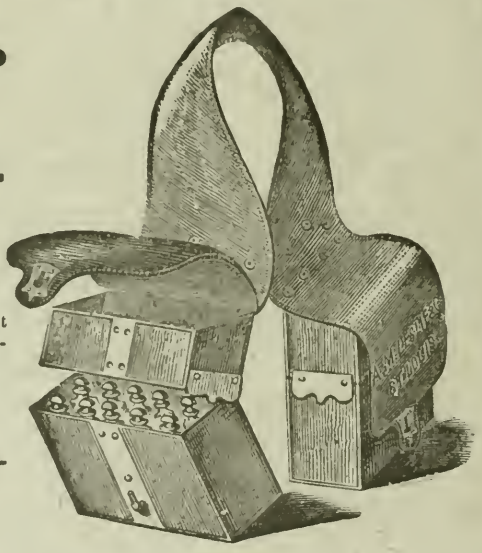
MANUFACTURERS OF

LESLIE'S IMPROVED

Physician's

Saddle Bags.

(Patented March 21, 1871.)



The most complete, compact and durable bags in the market, also the cheapest.

Send for Descriptive Circular.

Address Orders,

A. M. LESLIE & CO.,

319 NORTH FIFTH STREET,

ST. LOUIS, MO.